

FIG. 1A

100

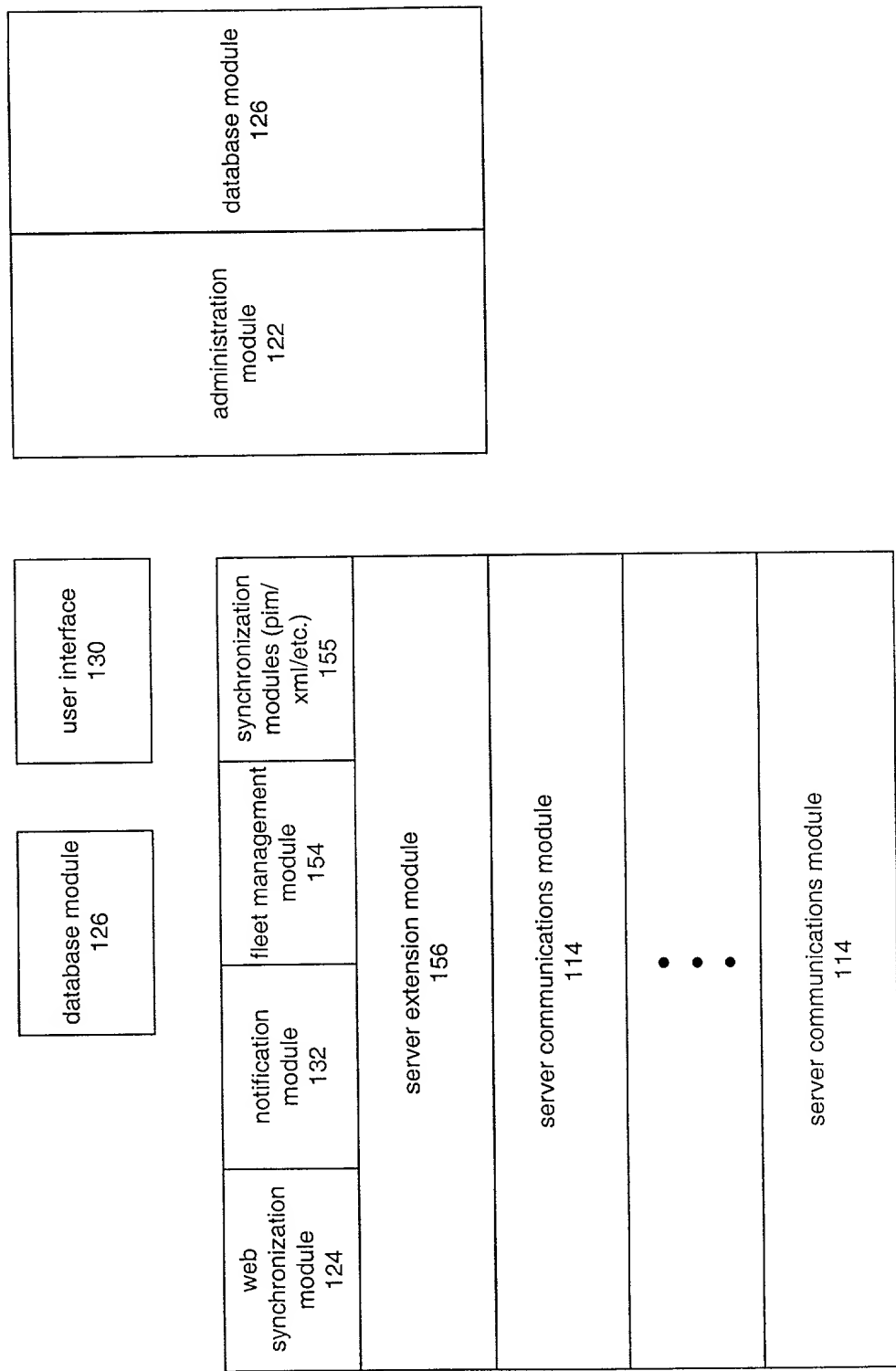


FIG. 1B

# Data Processing Unit 103A

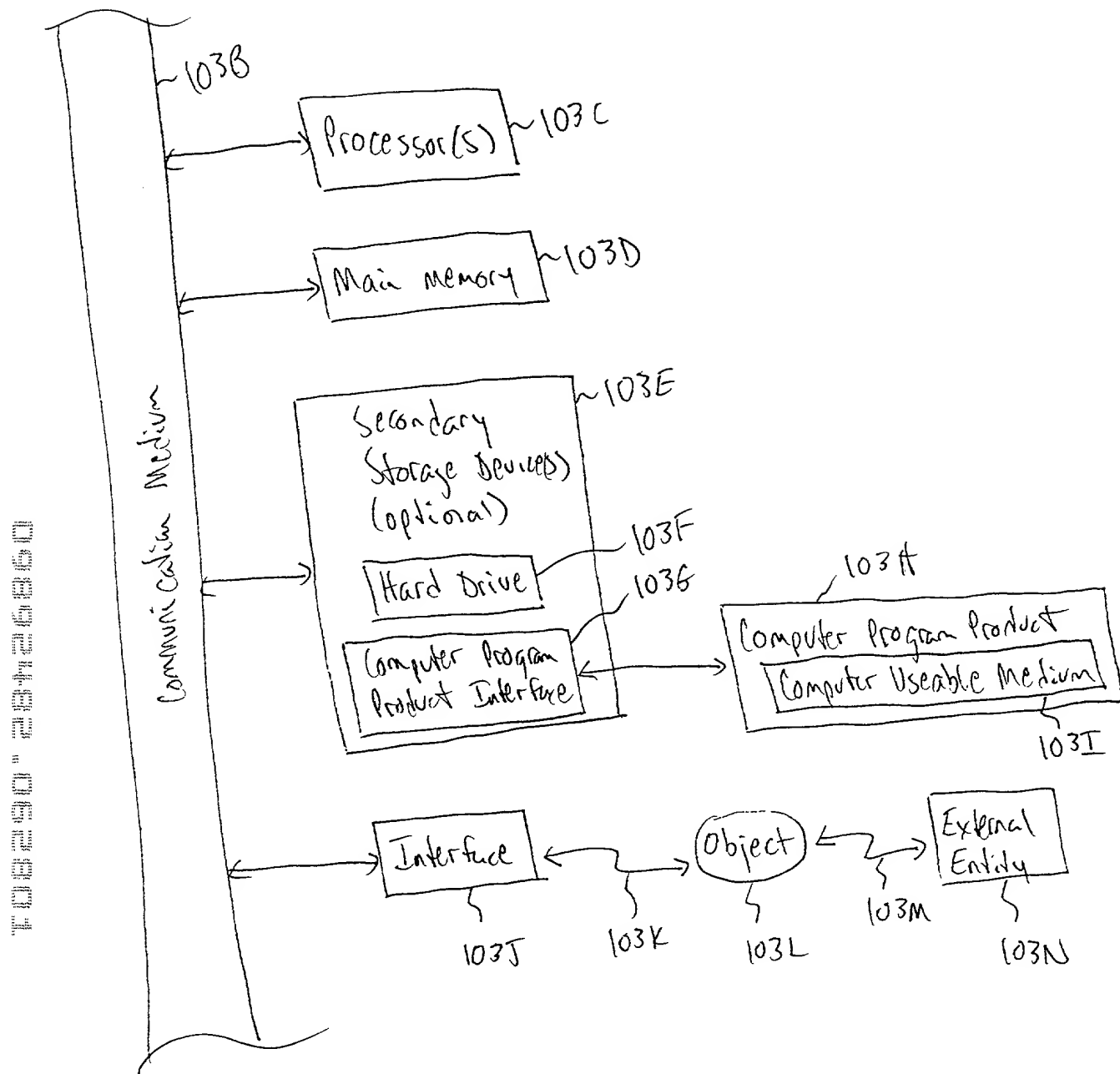
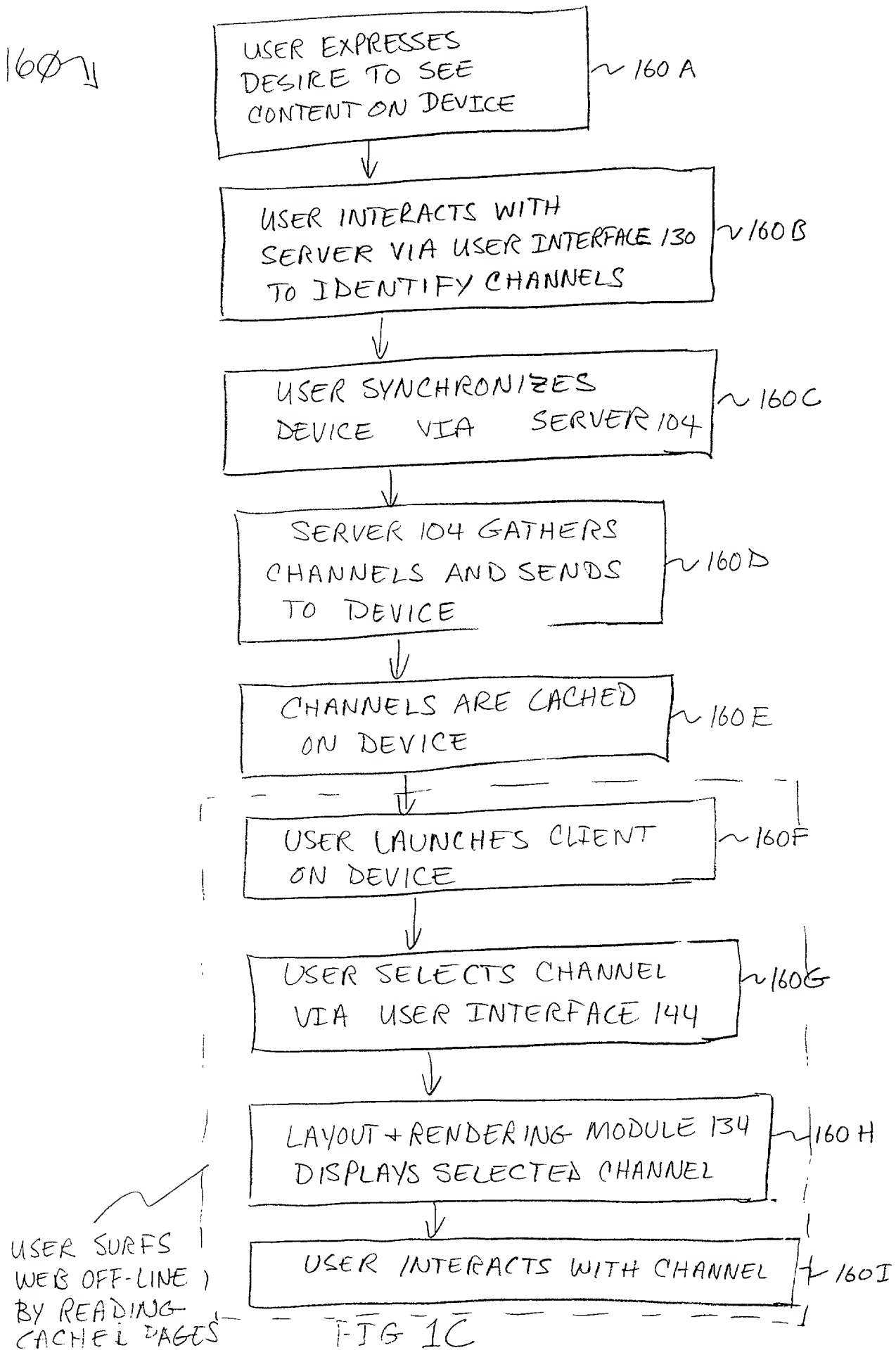


FIG. 1B1



160 I  
↓

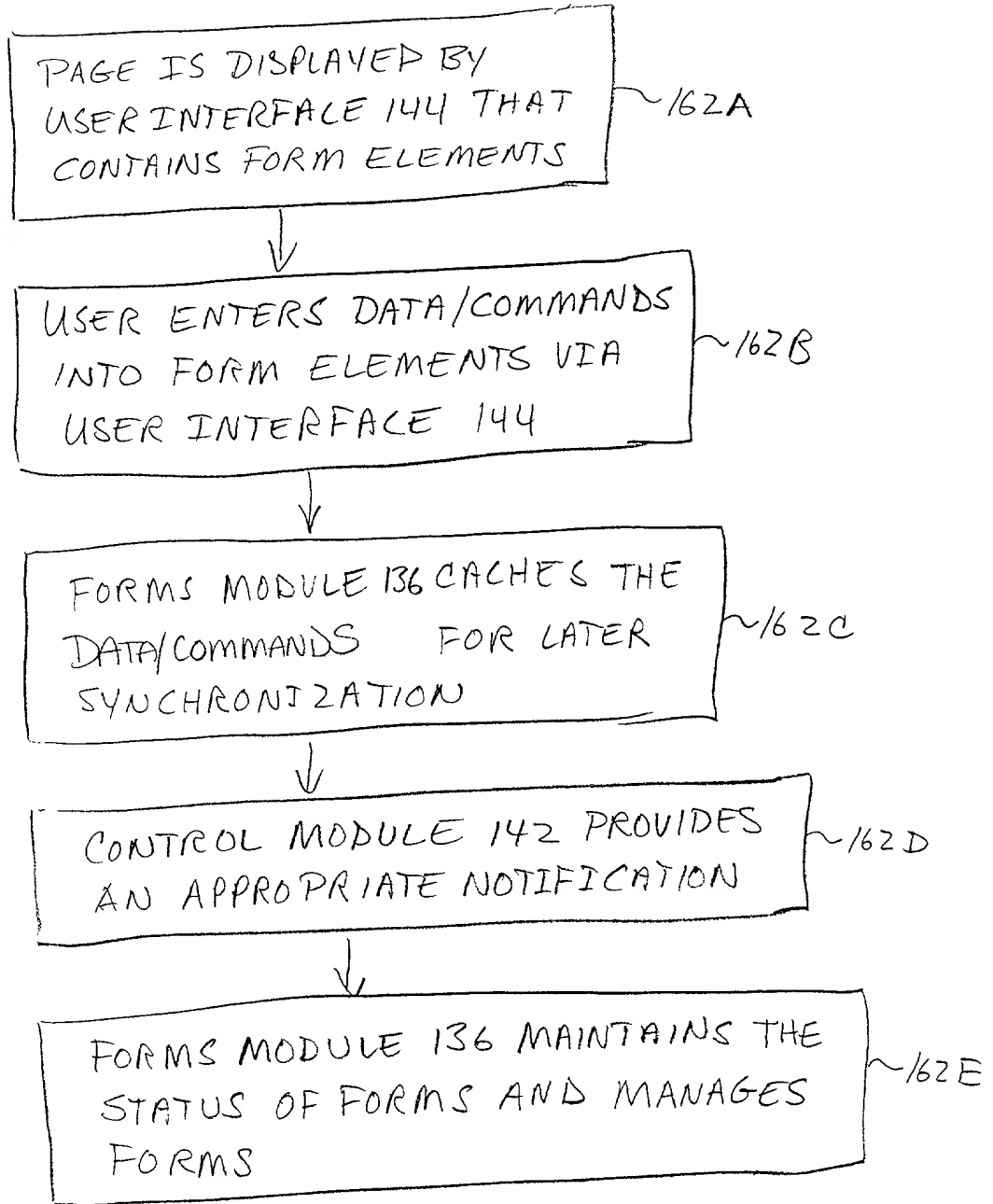


FIG. 1D

160 I'  
↓

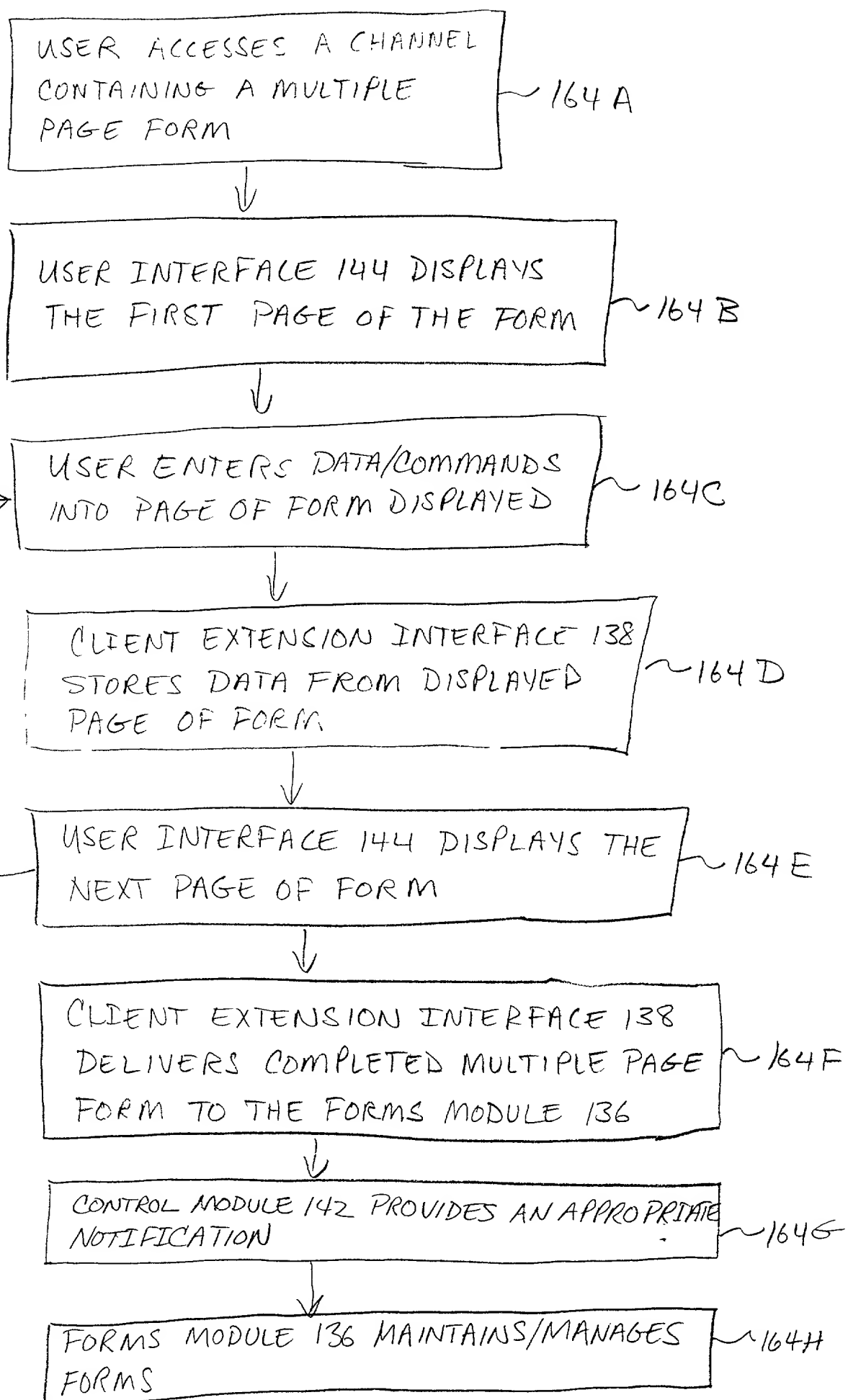


FIG. 1E

FIG. 1E

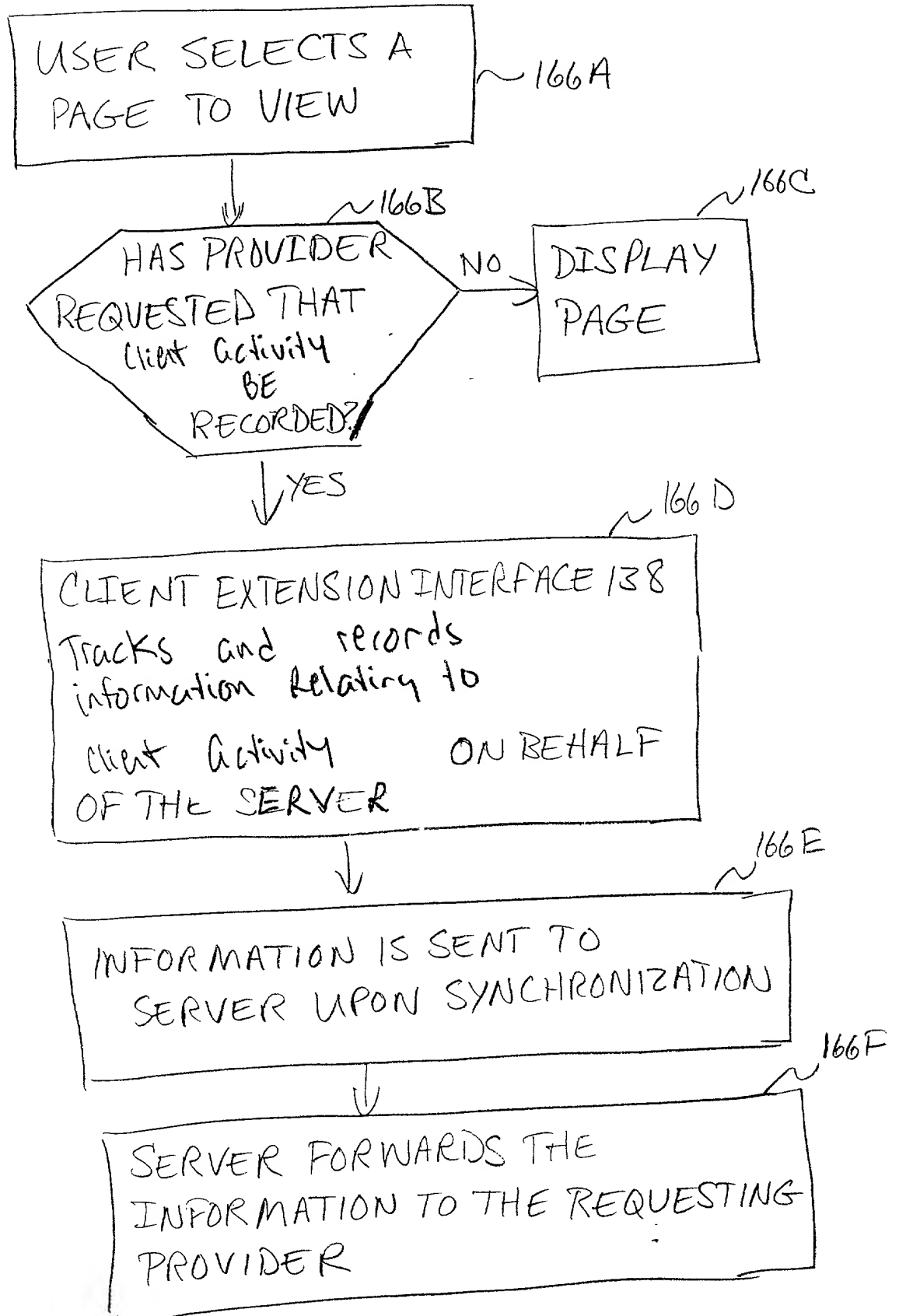


FIG. 1F1

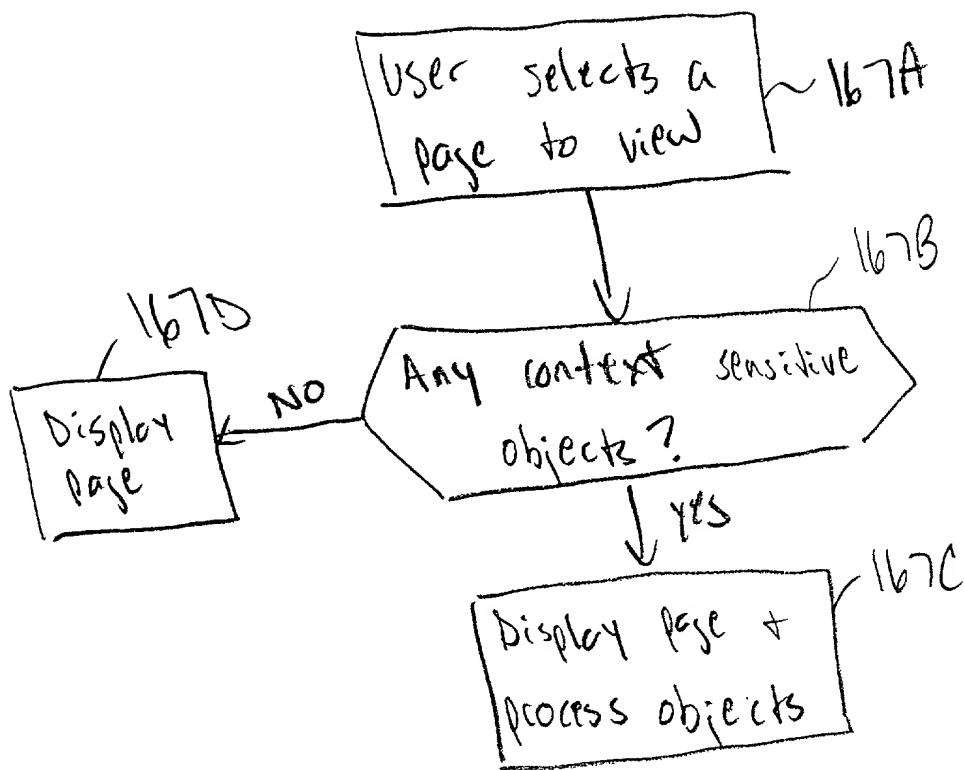


FIG. 1F2



1687

CLIENT INITIALIZES A SYNC  
AND GIVES A SERVER A  
NULL DATA MARKER

168A



SERVER TELLS CLIENT WHICH  
CLIENT DATABASES IT WISHES  
TO TRACK AND SENDS DATAMARKER [c]

168B

FIG. 1G

1707

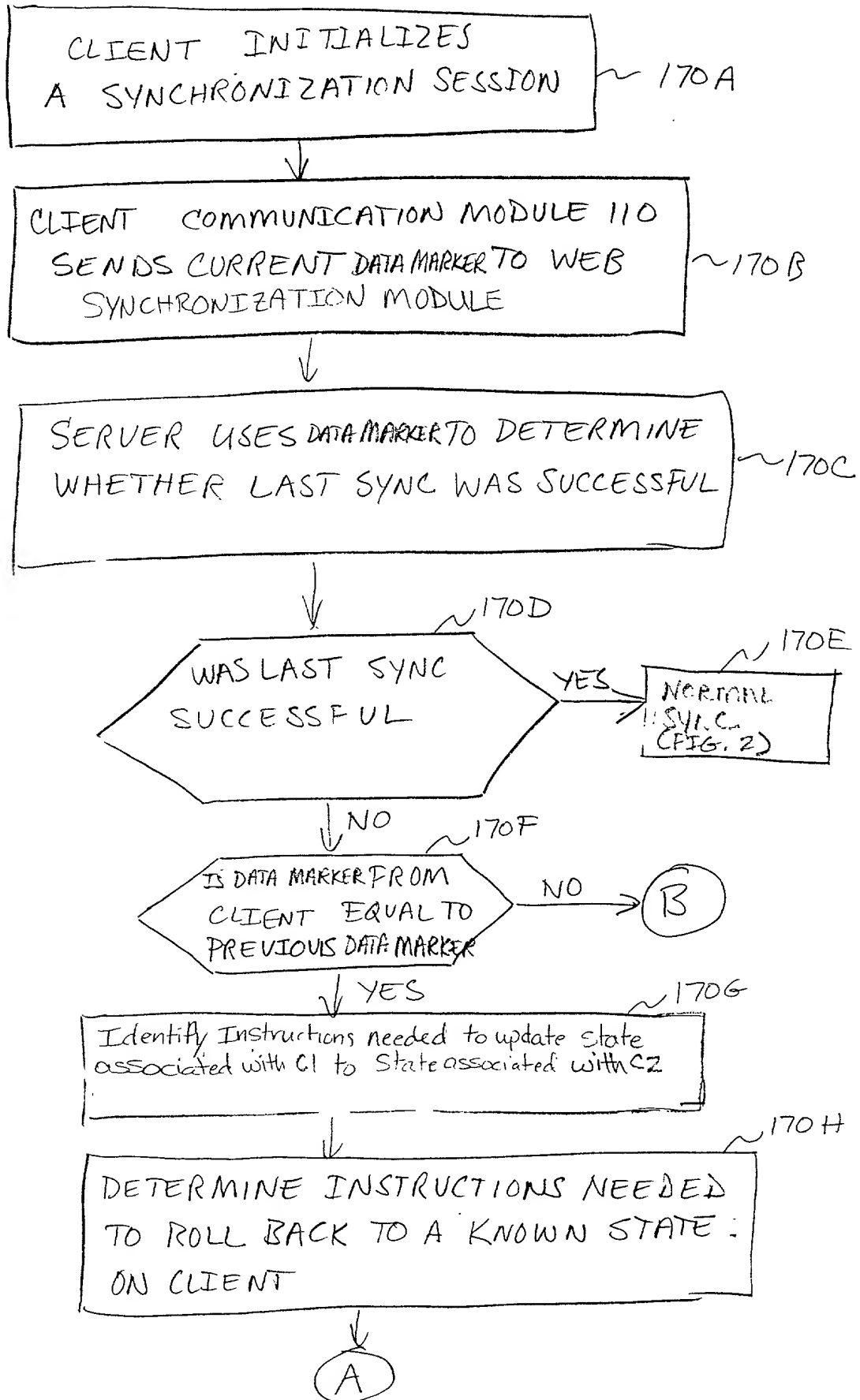


FIG. 1H1

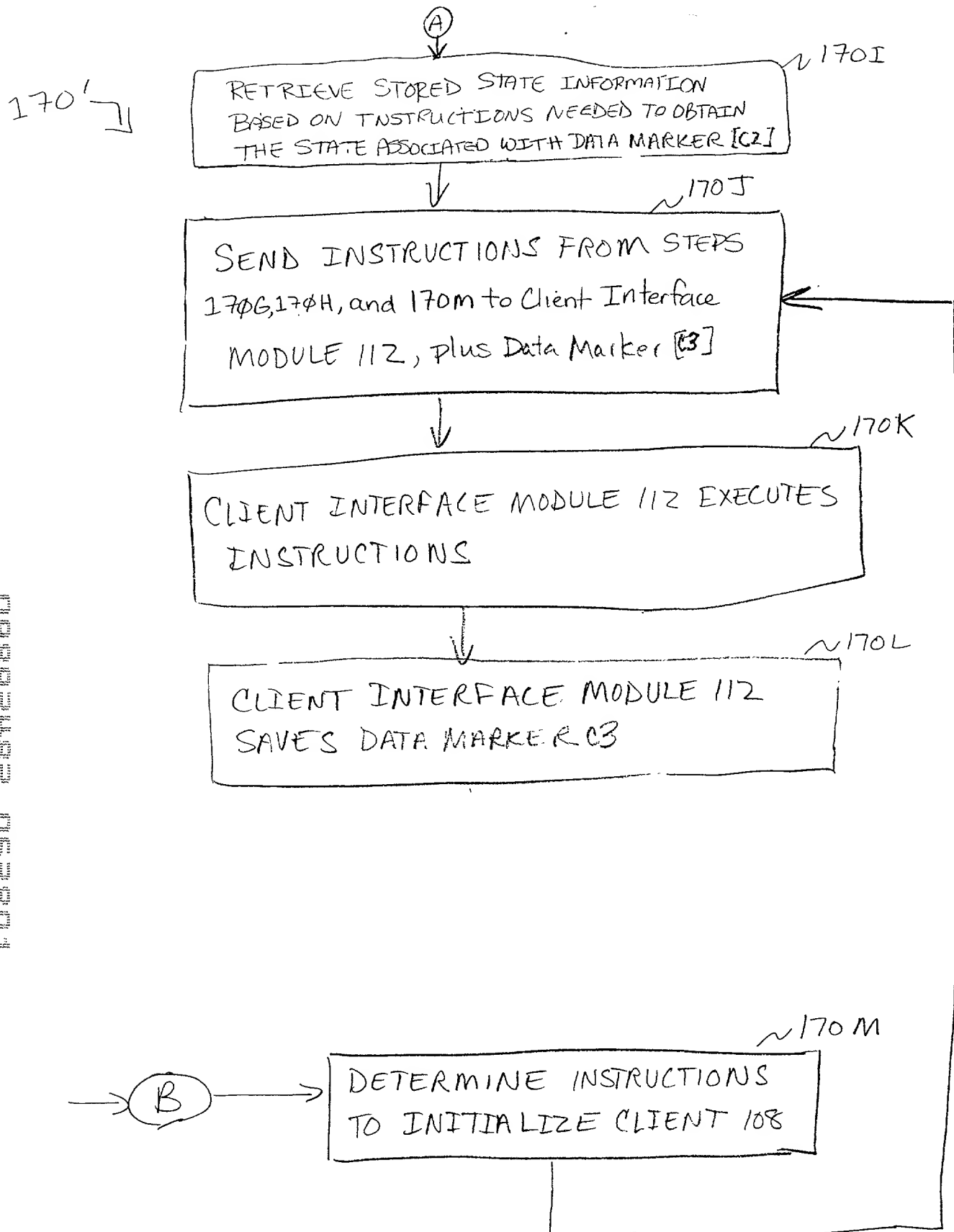


FIG. 1H2

170E  
~

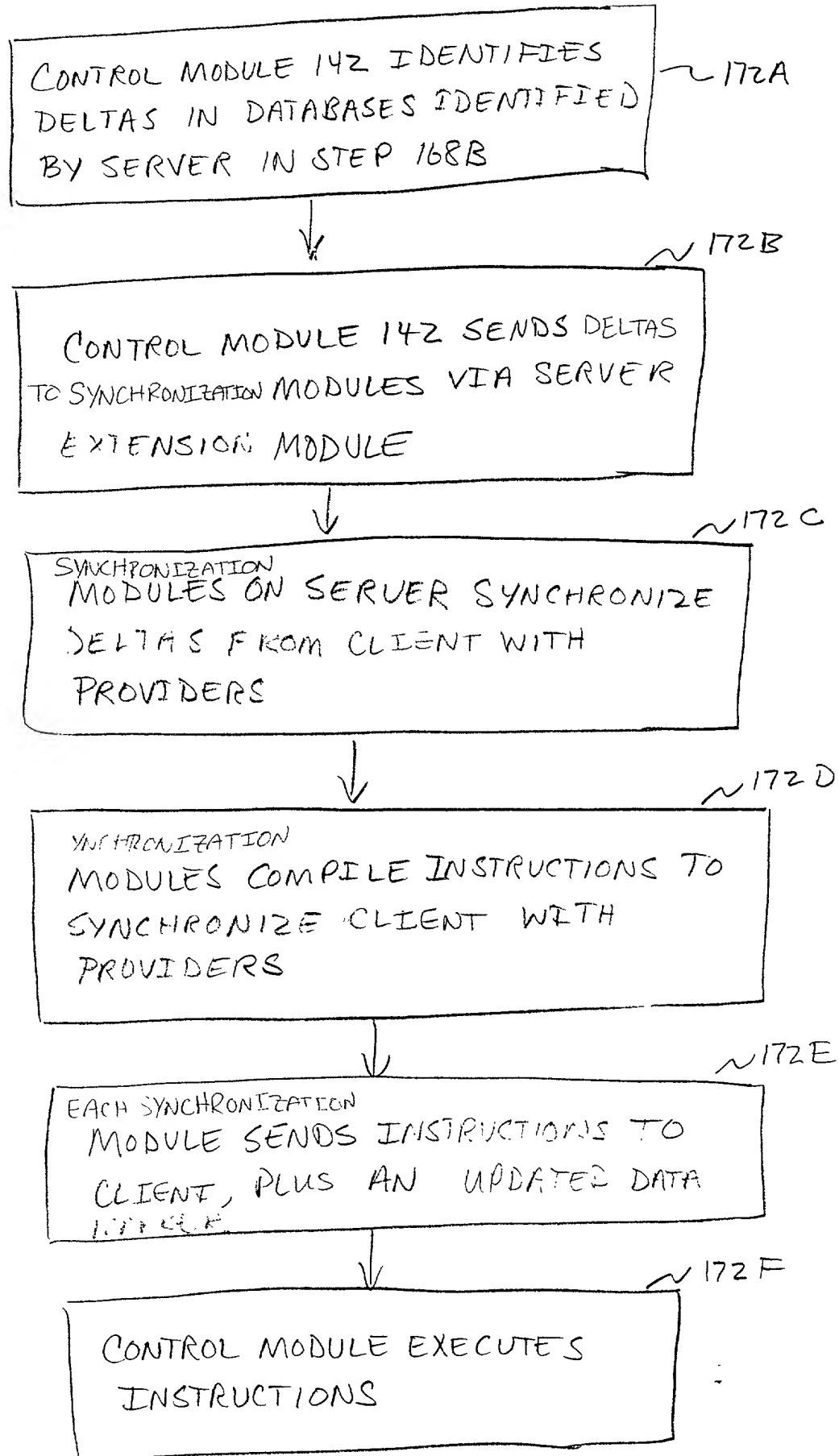


FIG. 111

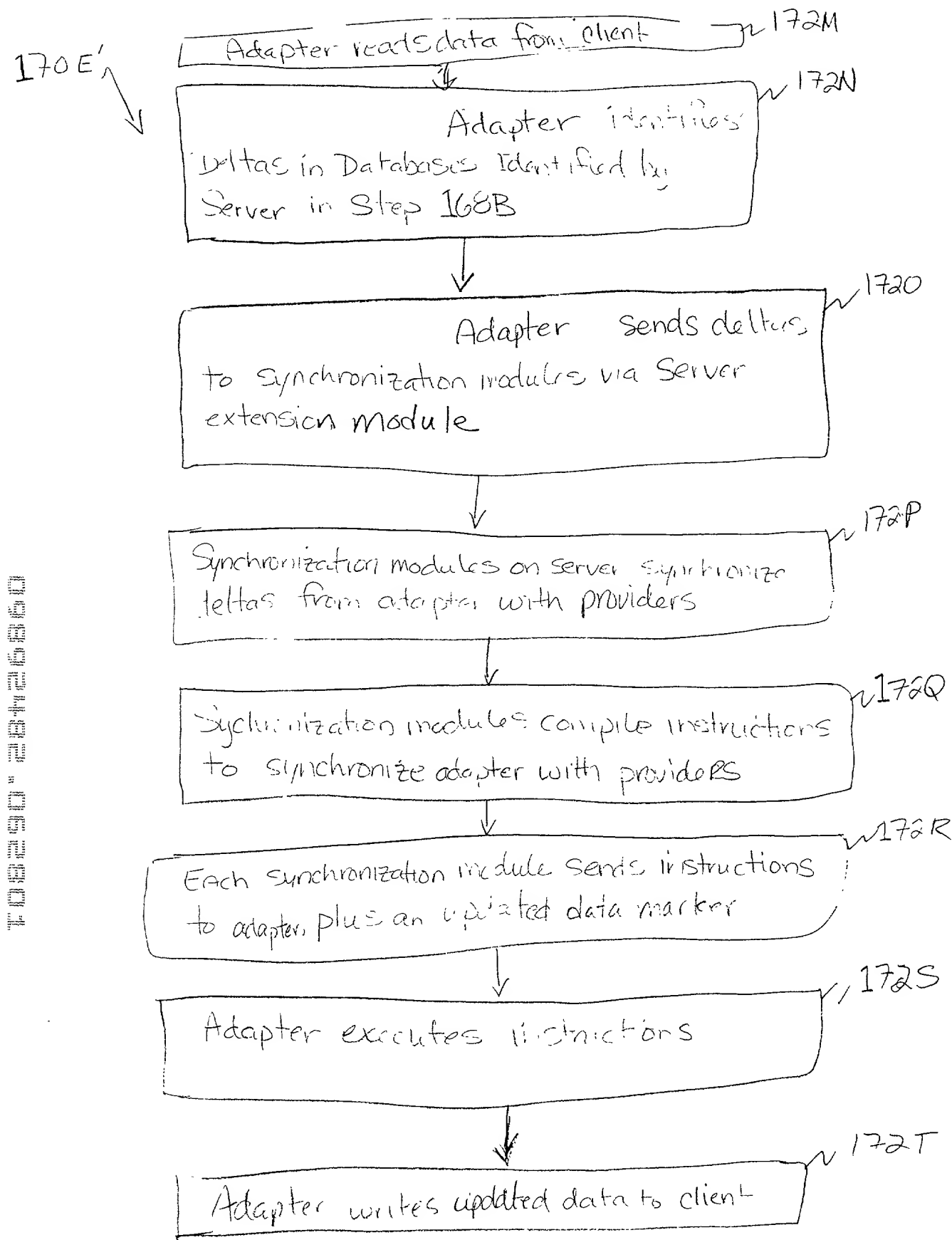


FIG. 1I2

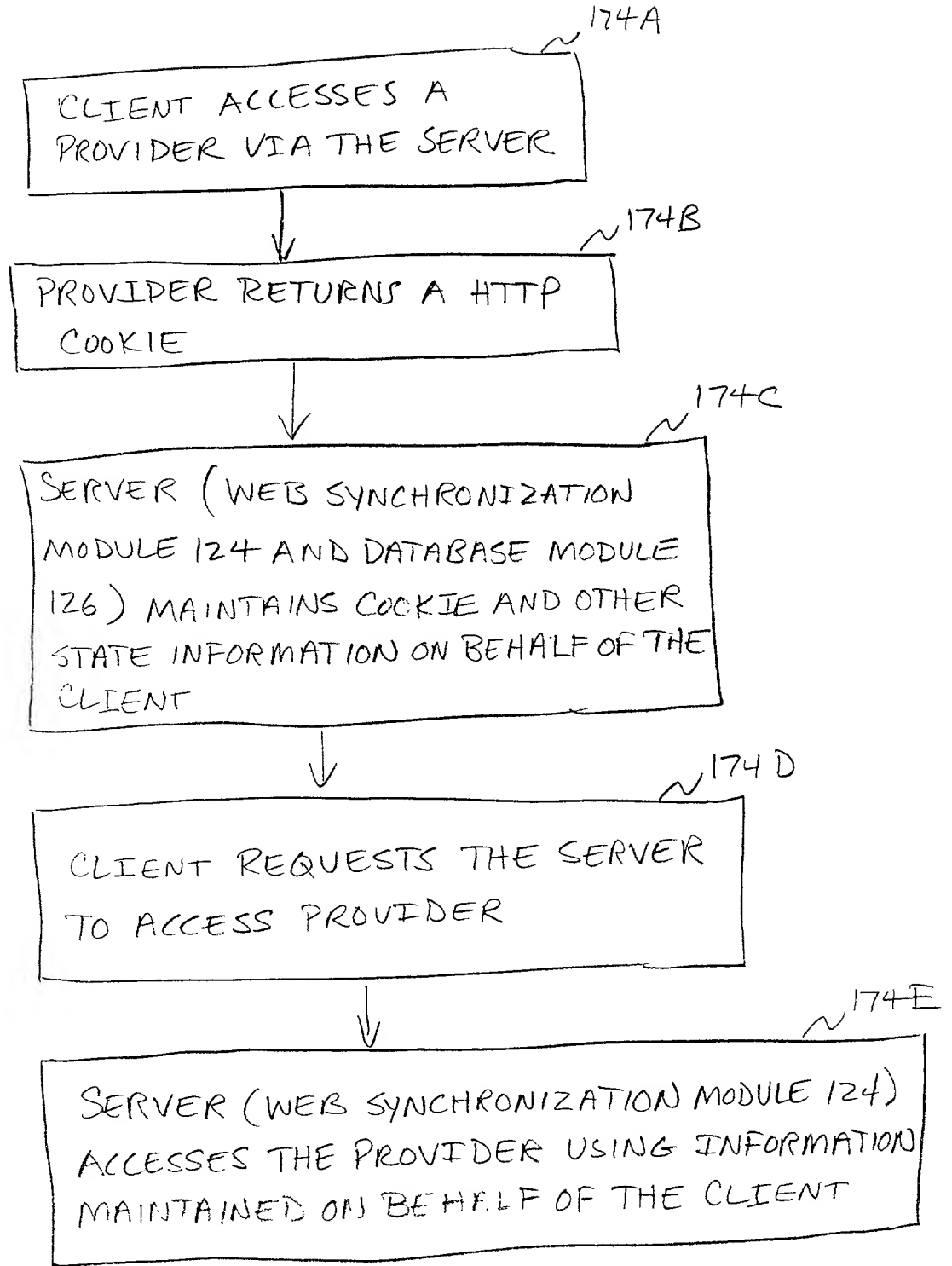


FIG. 1J

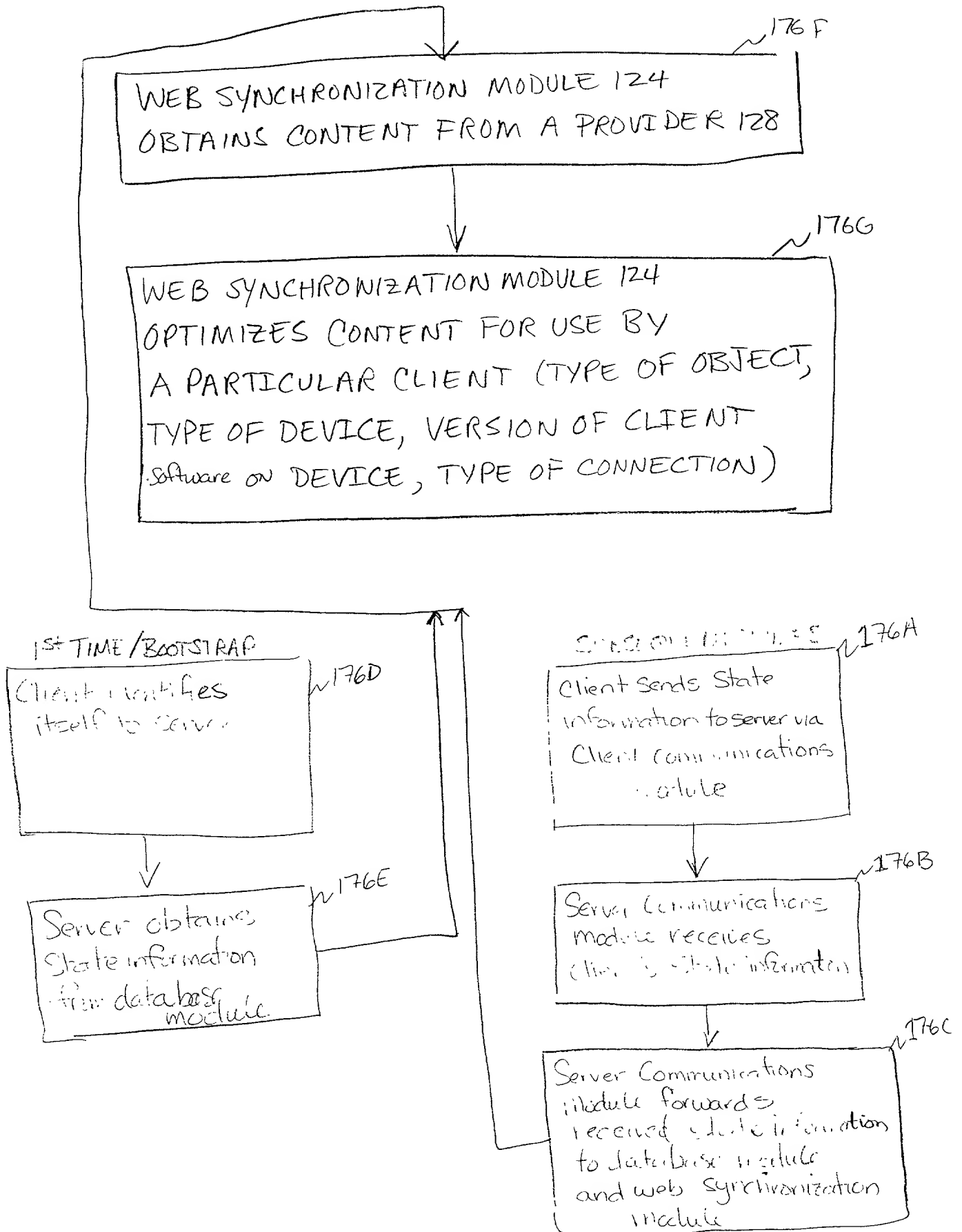
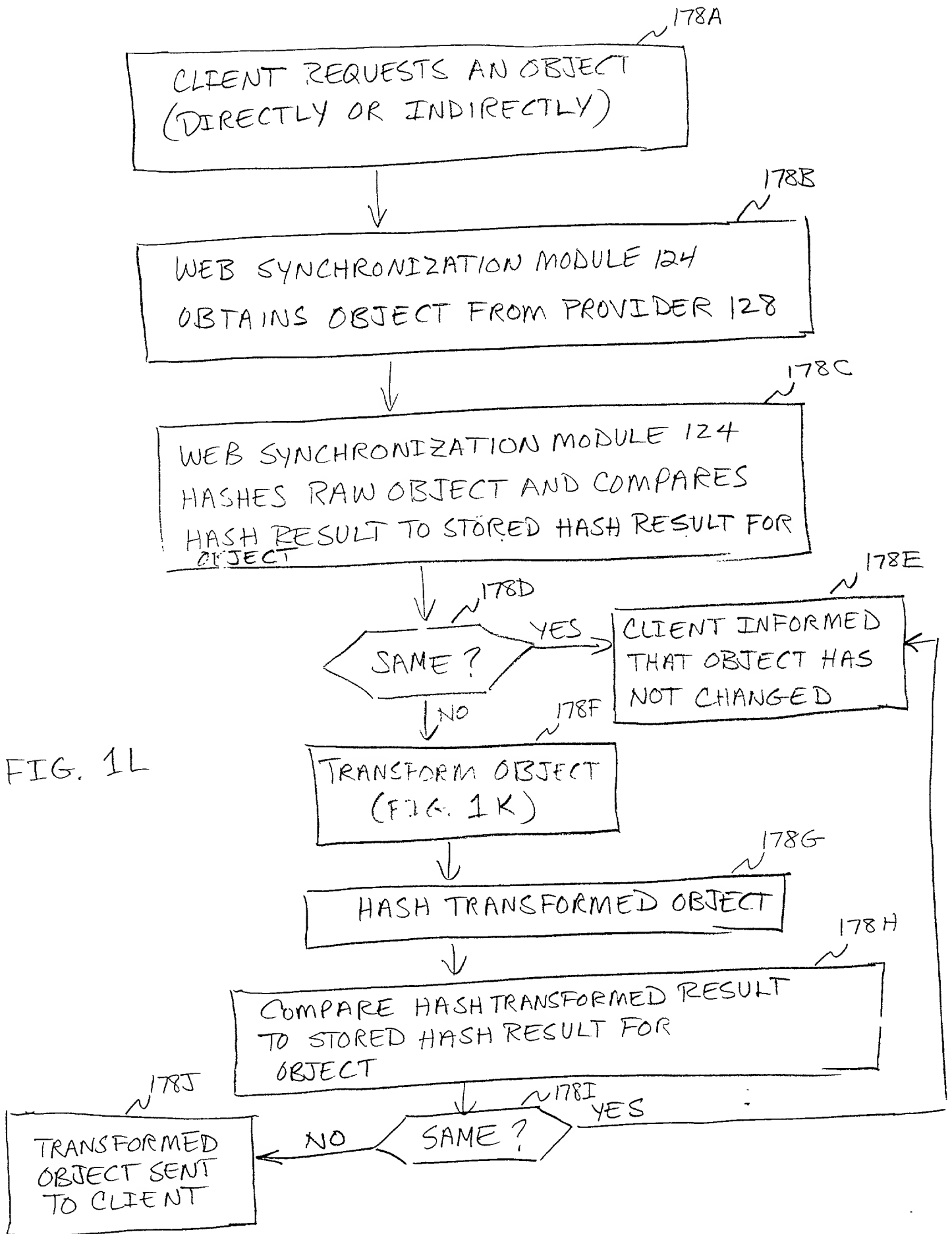
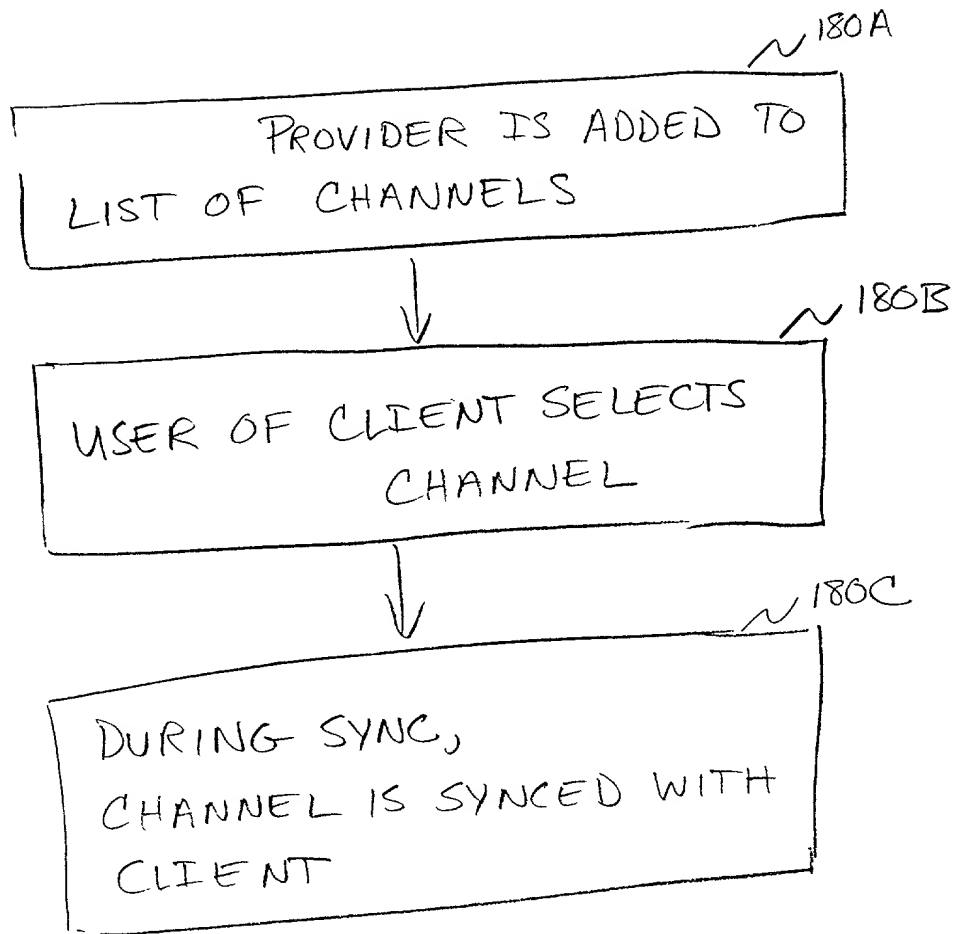


FIG. 1K







- MUSIC
- PHOTO ALBUMS
- BOOKS
- MOVIES
- ETC.

FIG. 1M

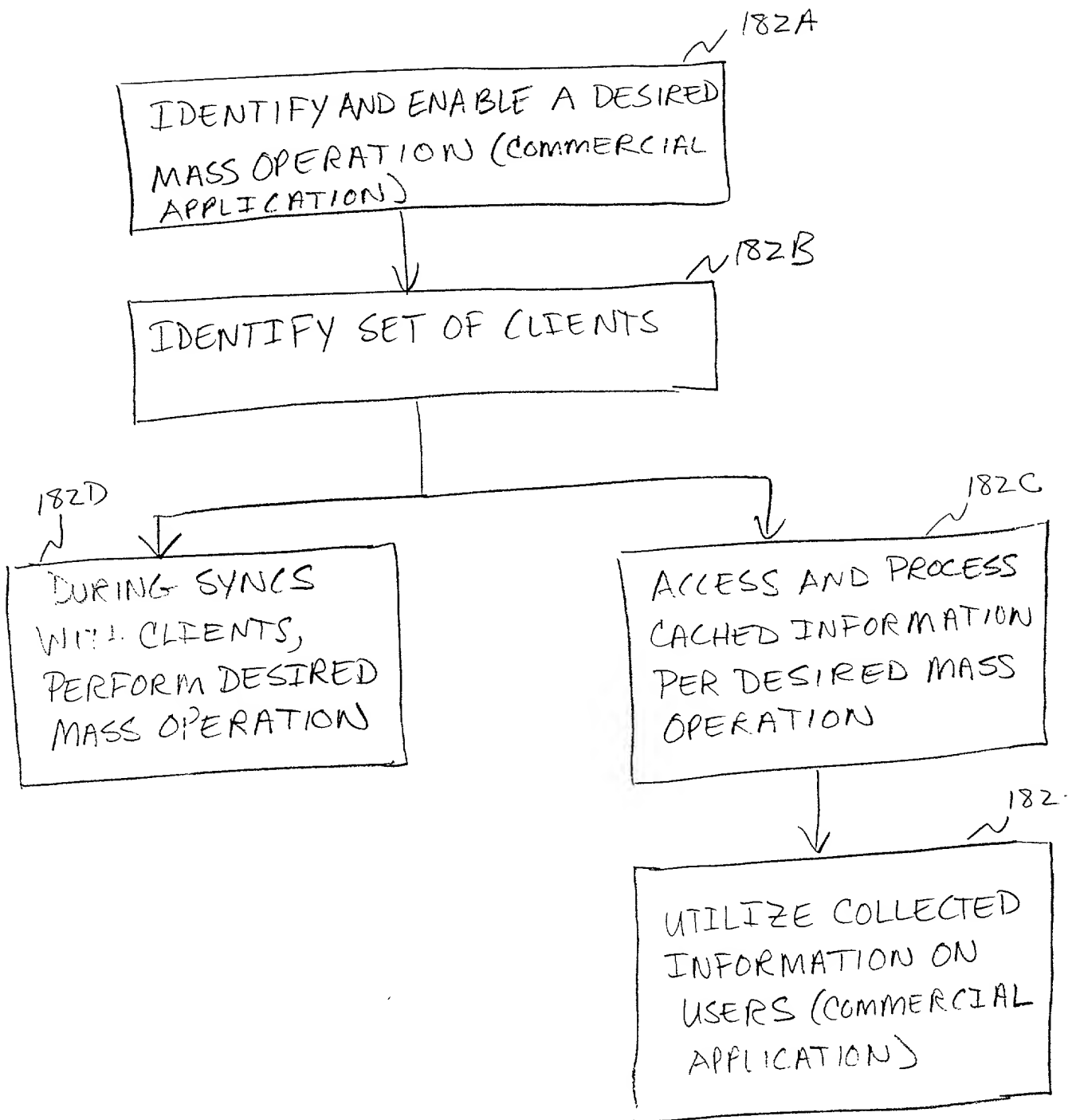


FIG. 1N

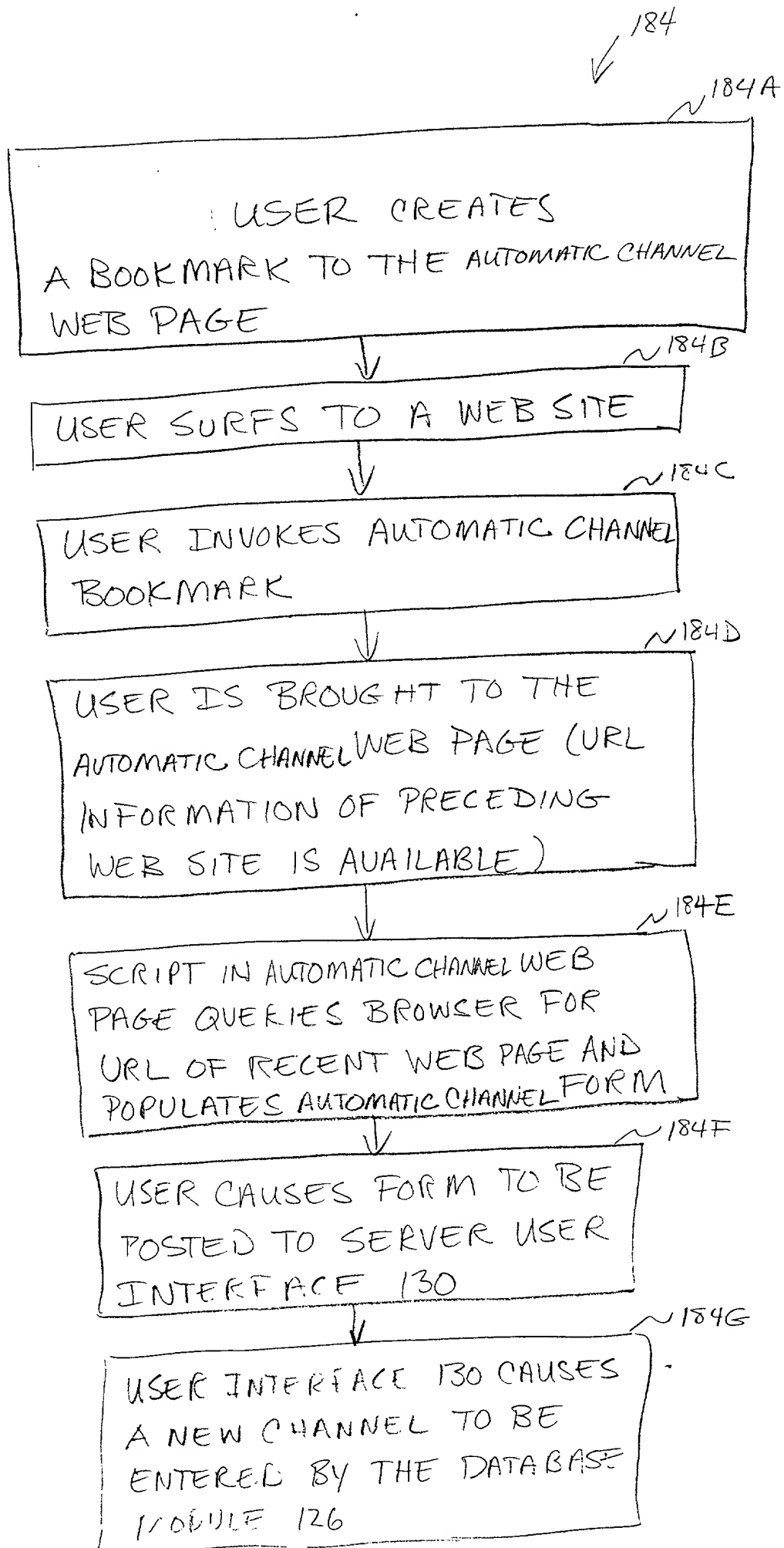


FIG. 10

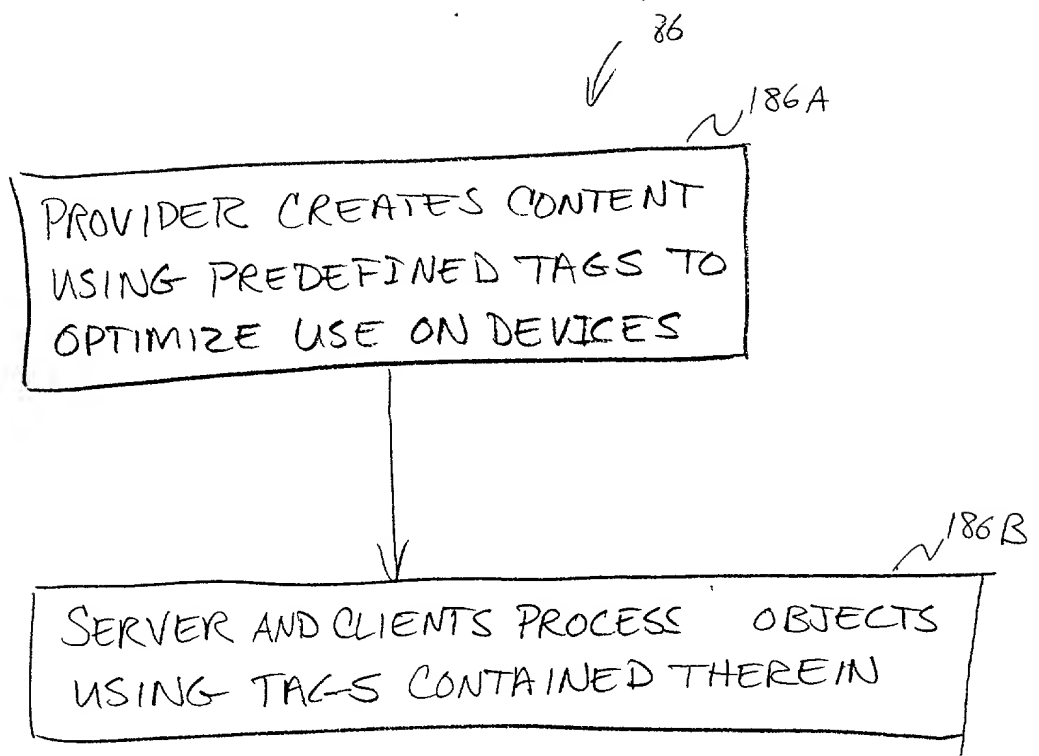


FIG. 1P

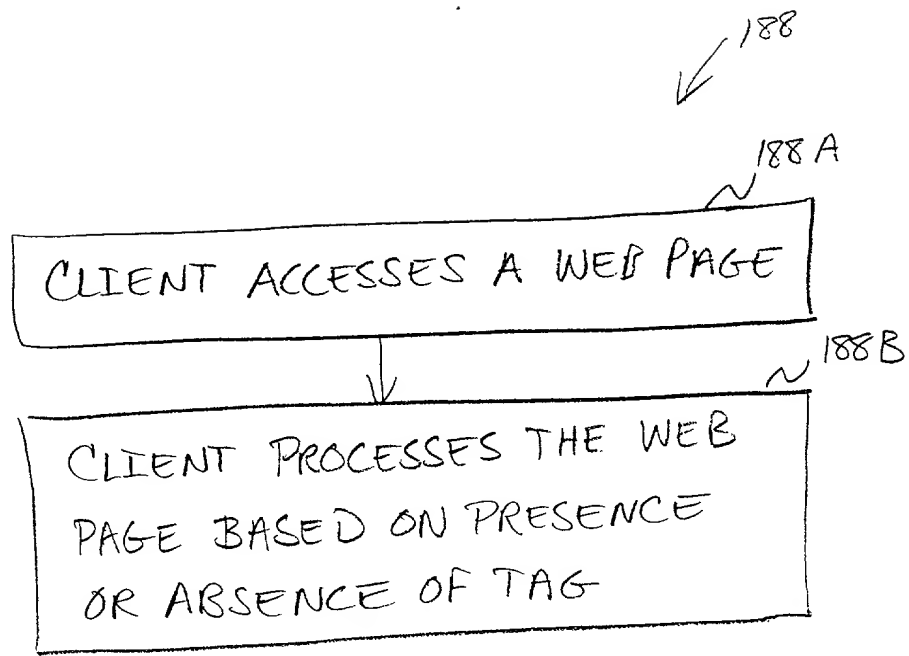


FIG. 1Q

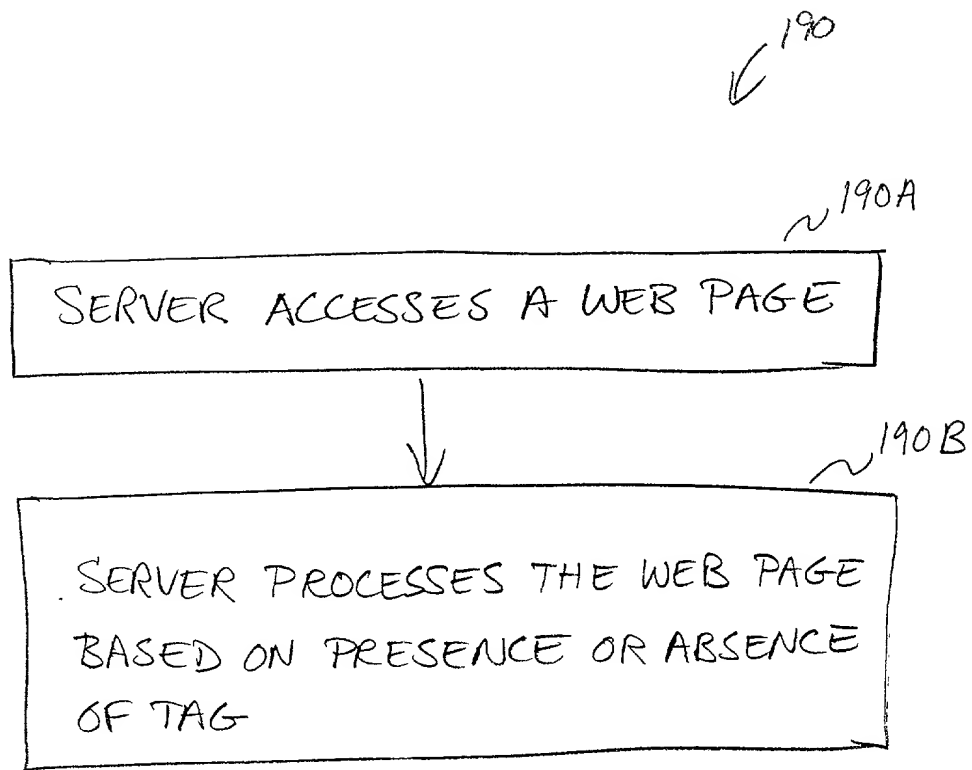


FIG. 1R

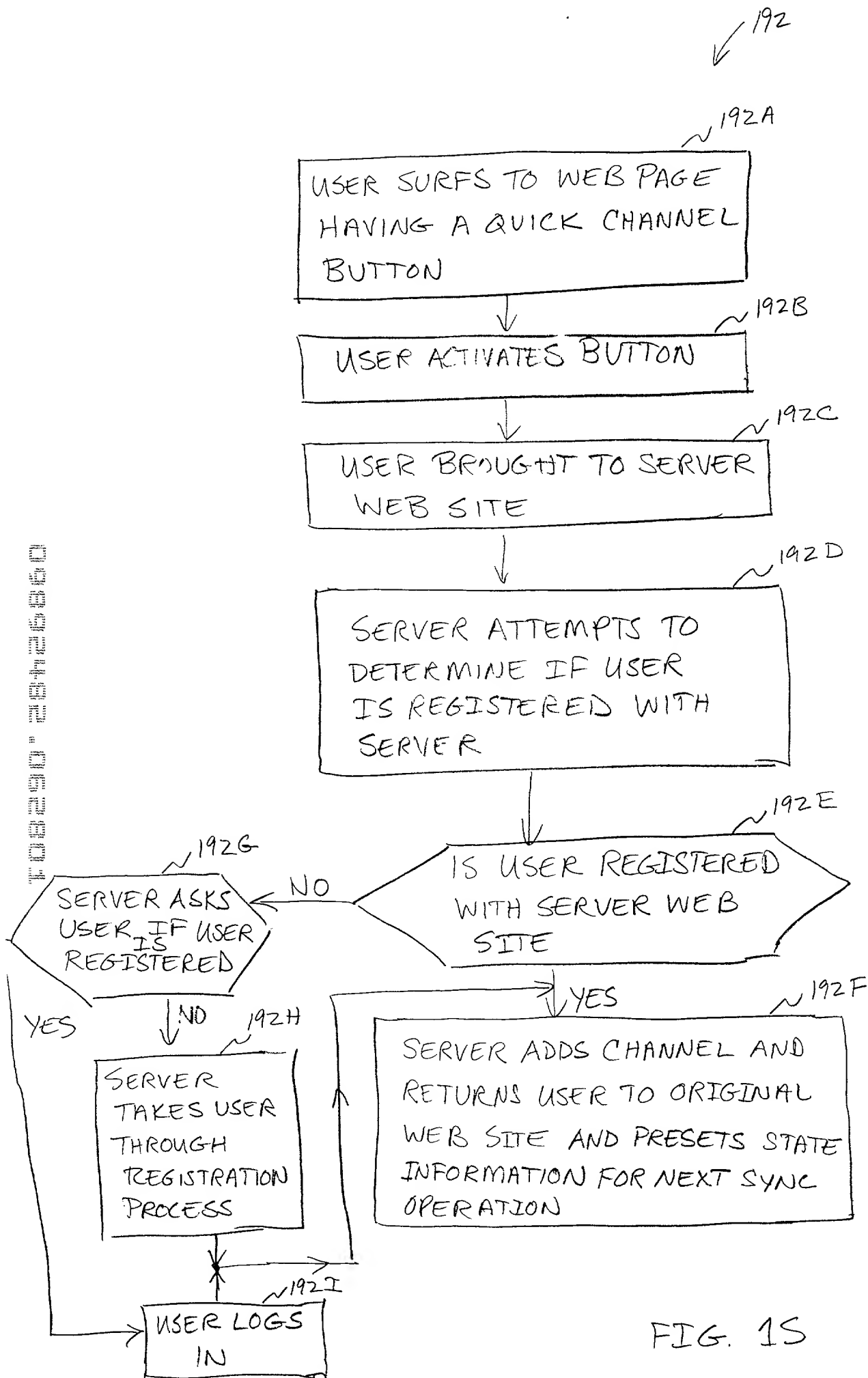


FIG. 15

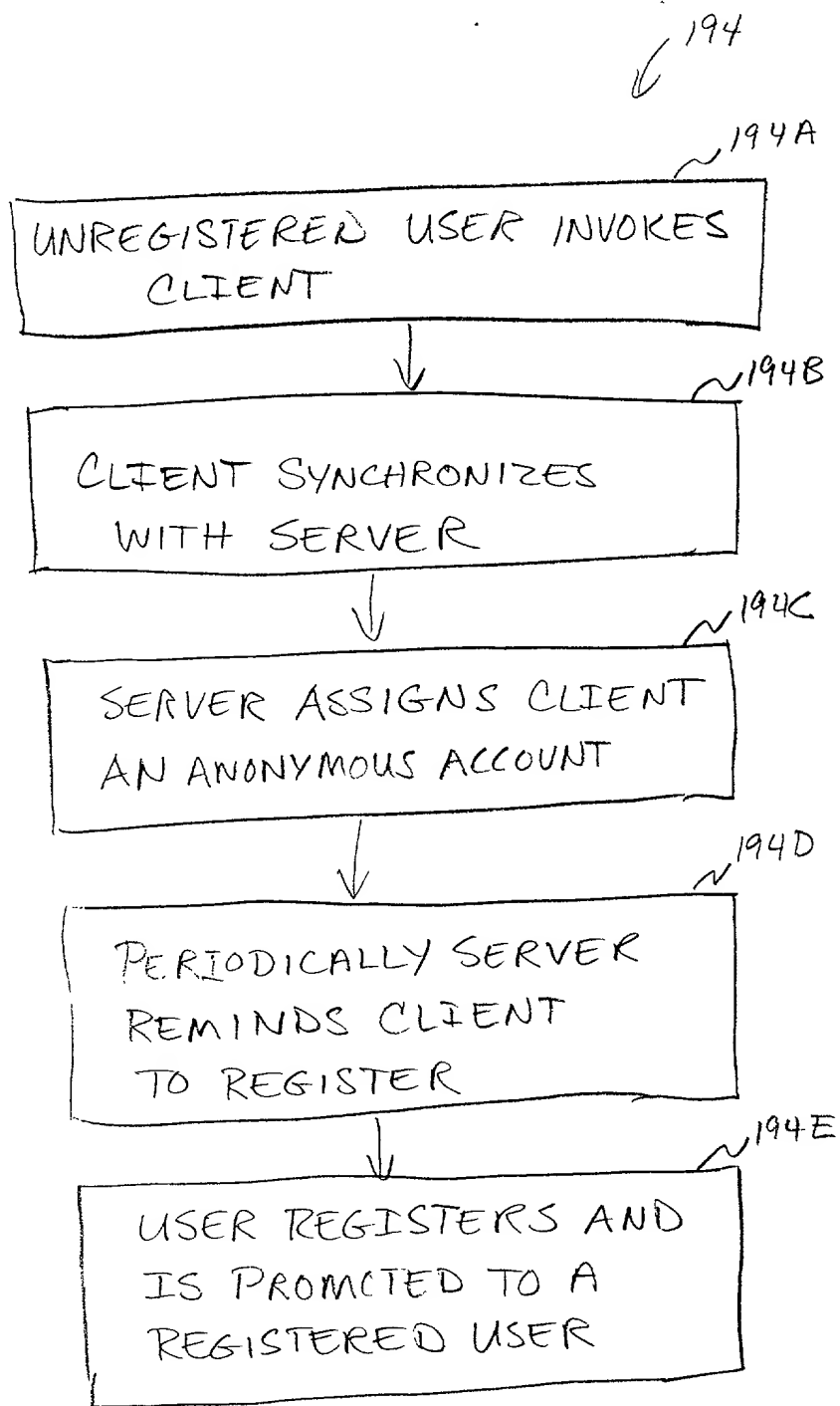


FIG. 1T



Core Technology : Placing Internet/  
Intranet Content on Mobile Devices

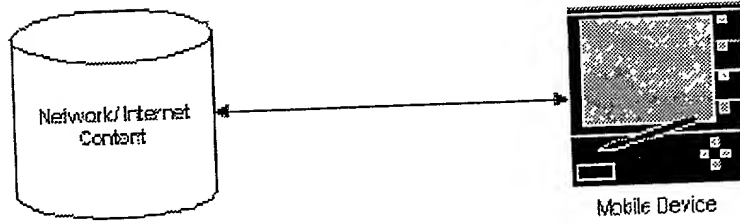


FIG. 1u

## Mobile Device/Server Environment

Mobile Devices in a Client Server Environment

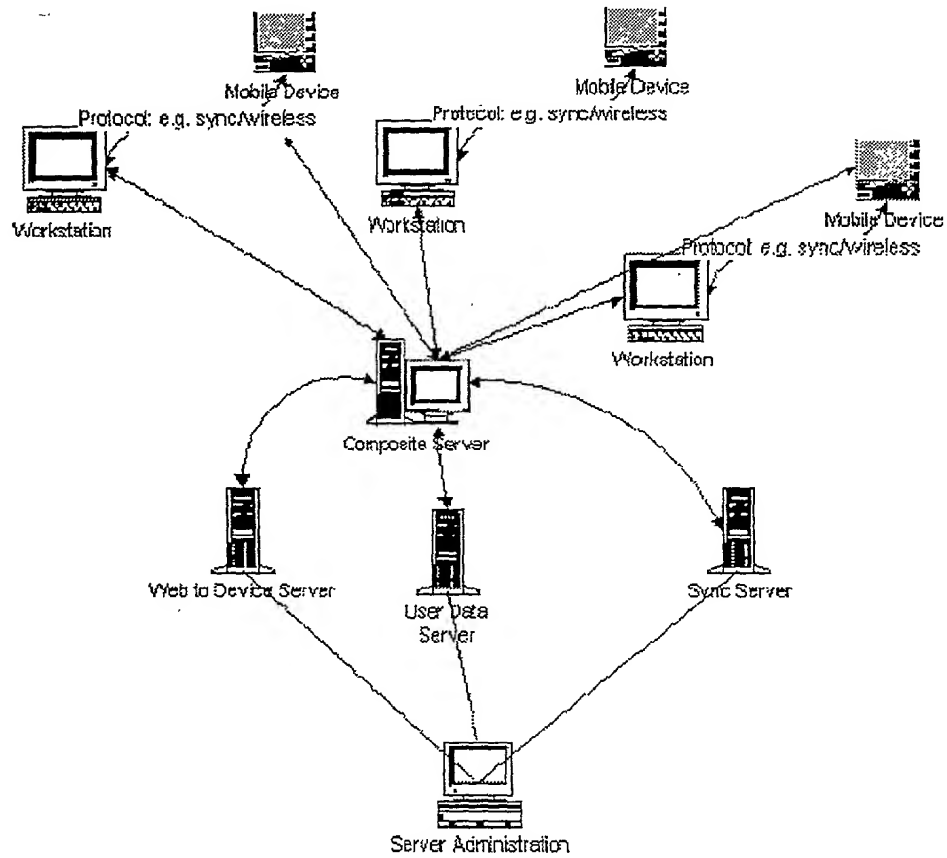


FIG. 1V

# Downstream Protocol

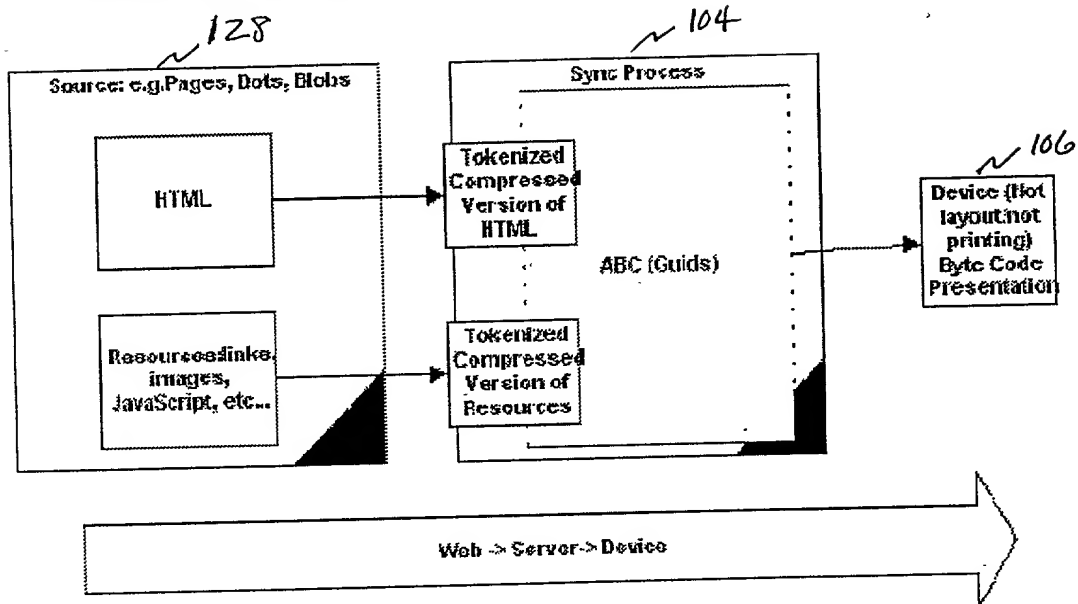


FIG. 1W

# One Up/One Down Sync

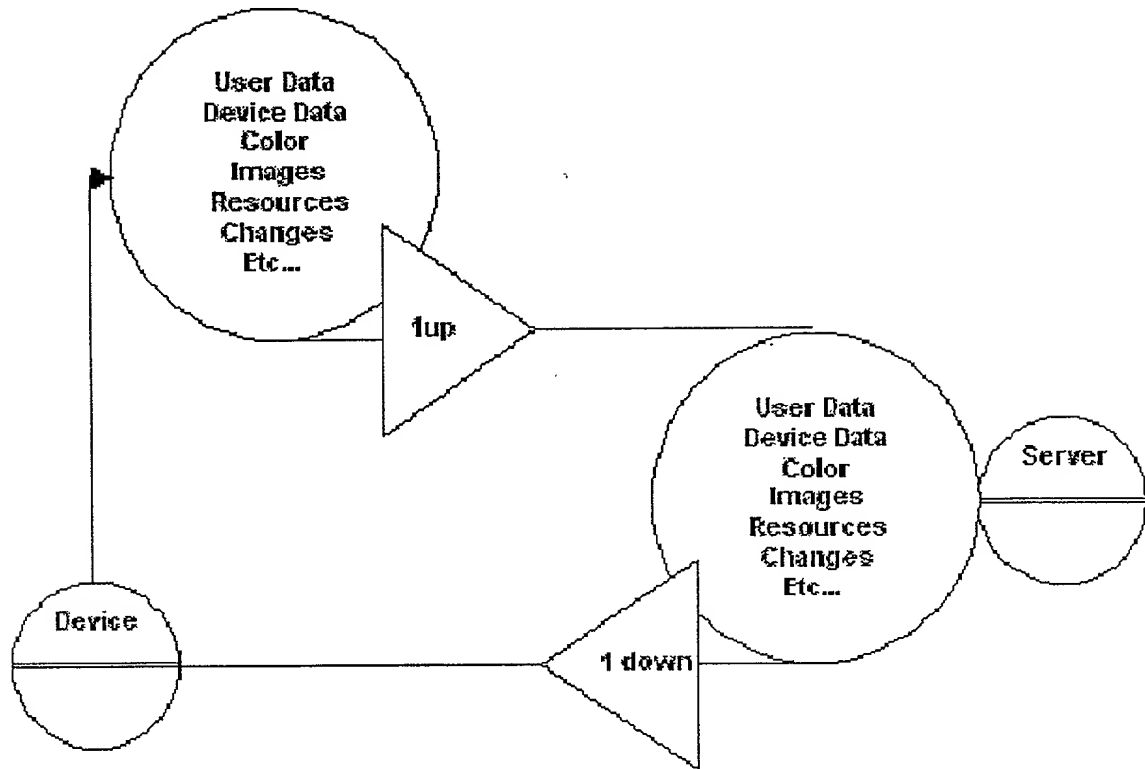


FIG. 1X

# Sync Process

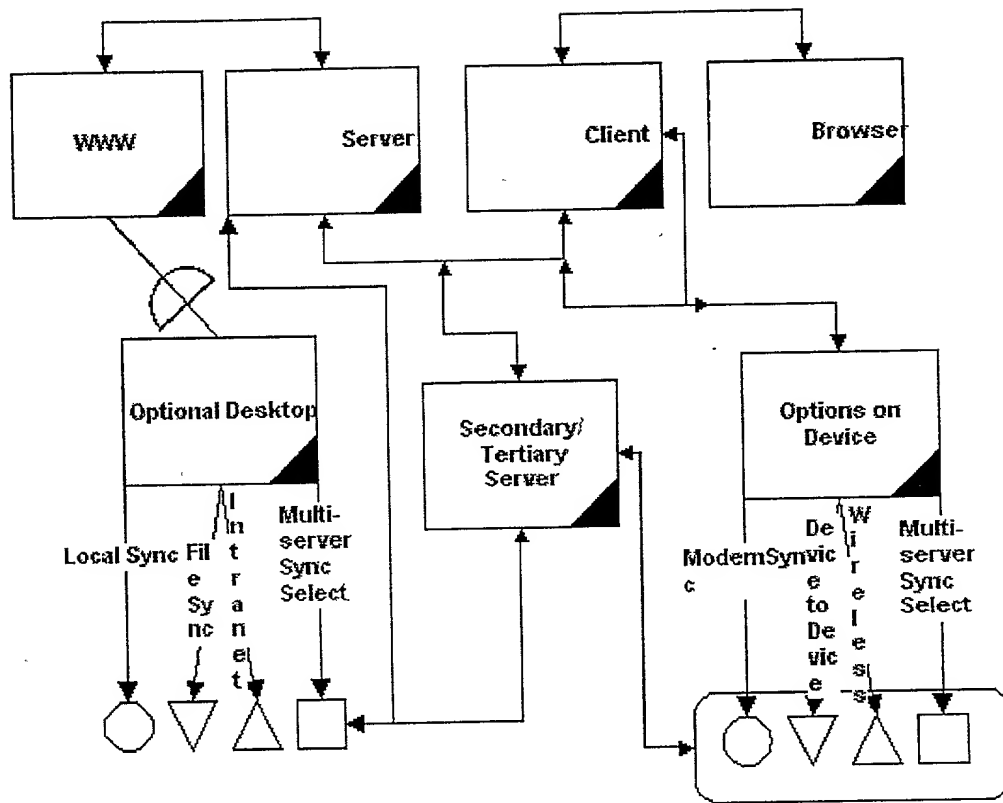


FIG. 14

# Granular Variable Protocol

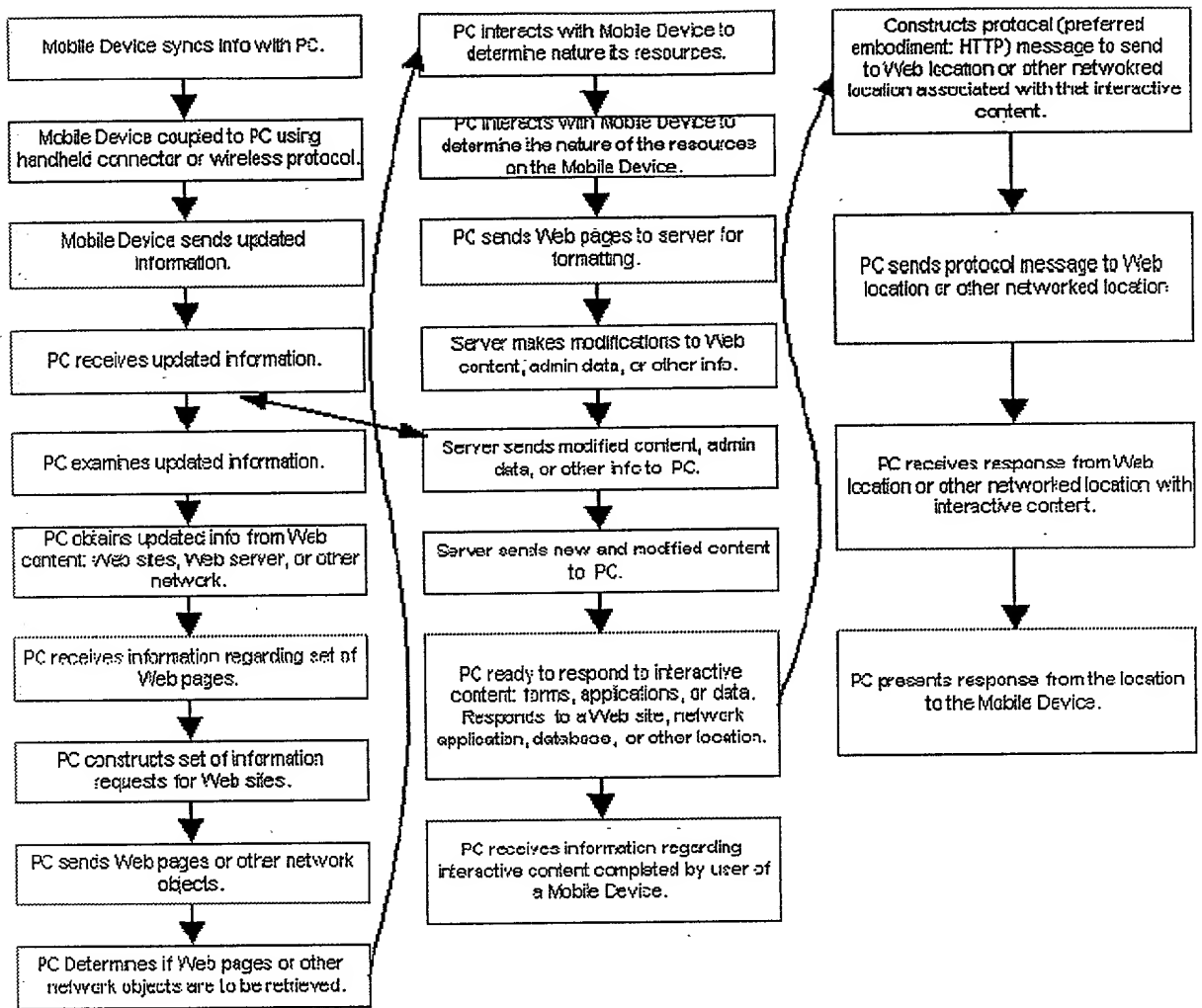


FIG. 17

# Optimization: An Example

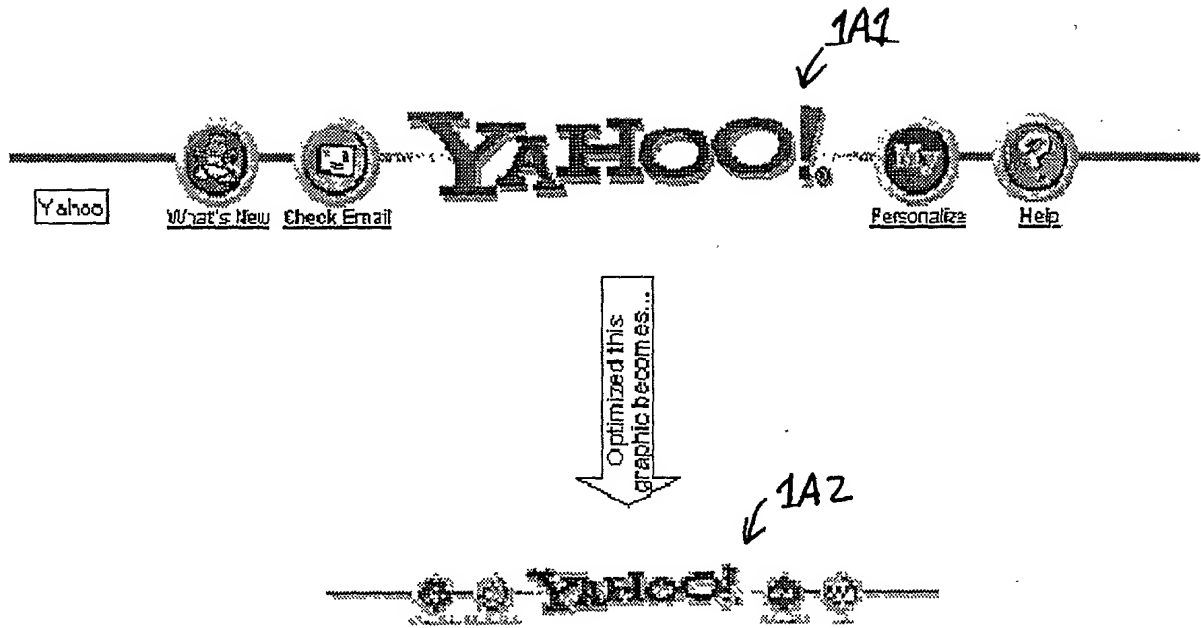


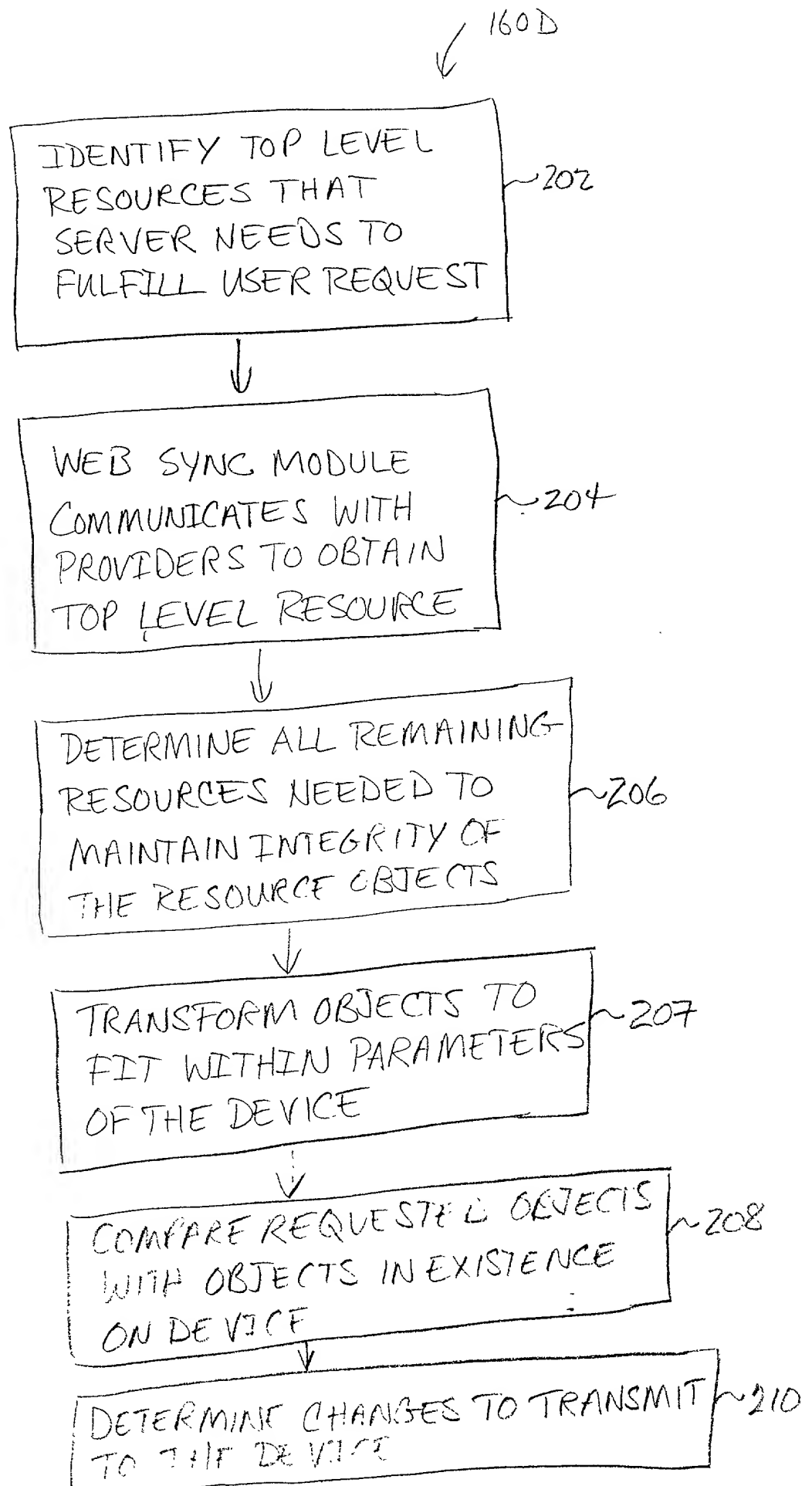
FIG. 1AA

[illegible]

FIG. 1AB



FIG. 2



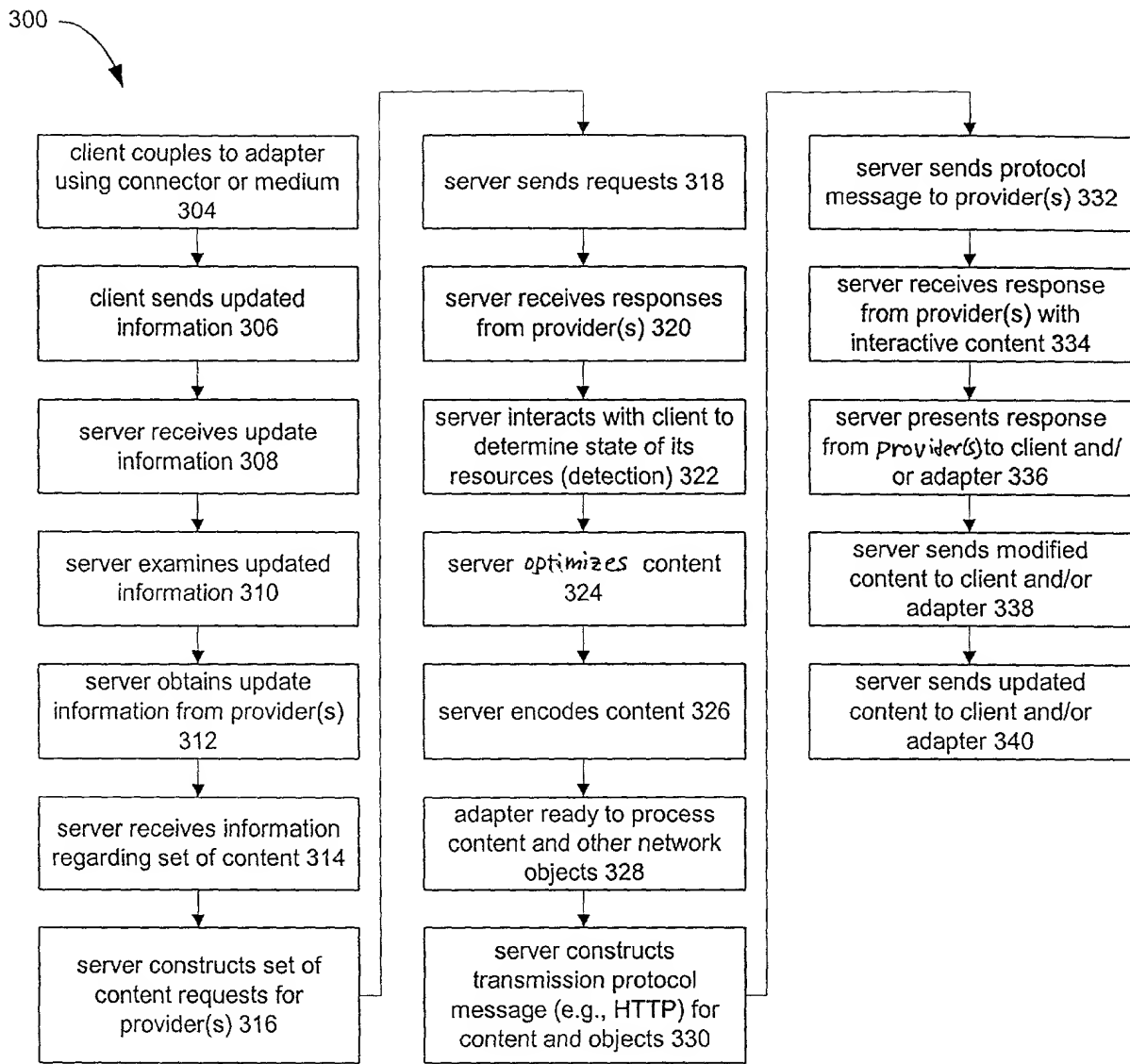


FIG. 3A

FIG. 3B

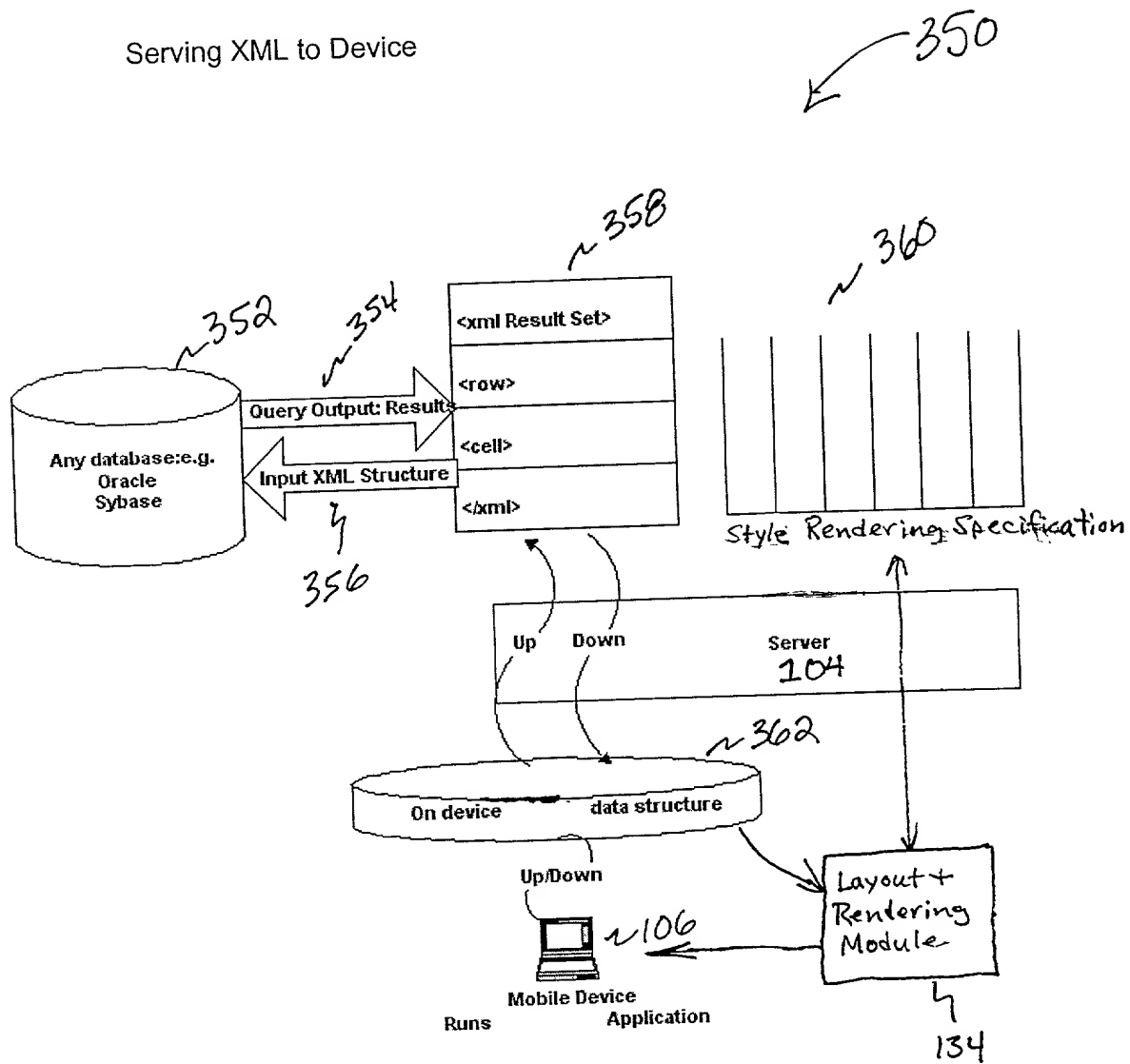


FIG. 3B

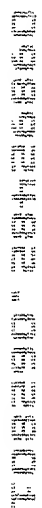


FIG. 3C

FIG. 4A

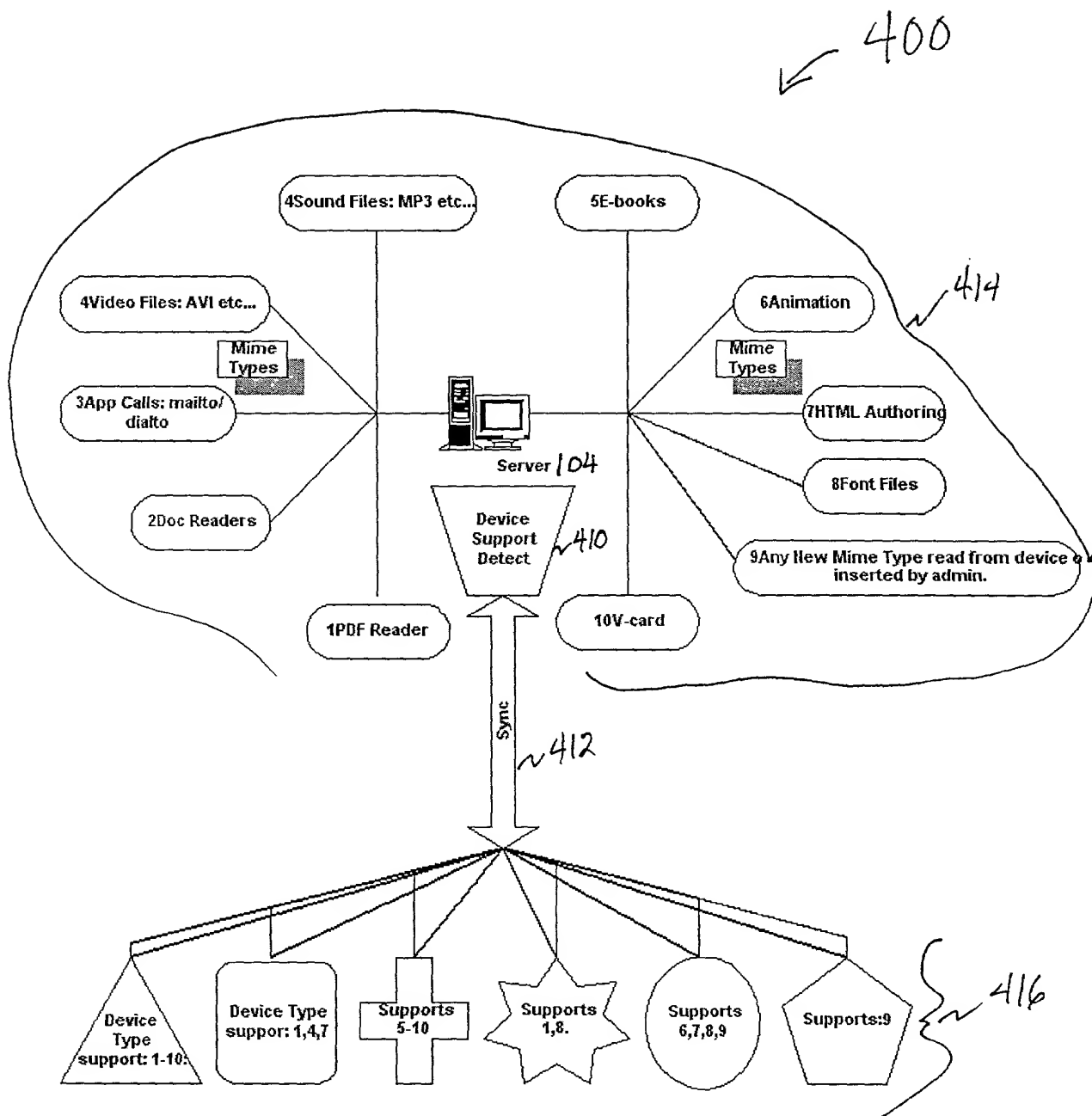


FIG. 4A

103290" 2372550

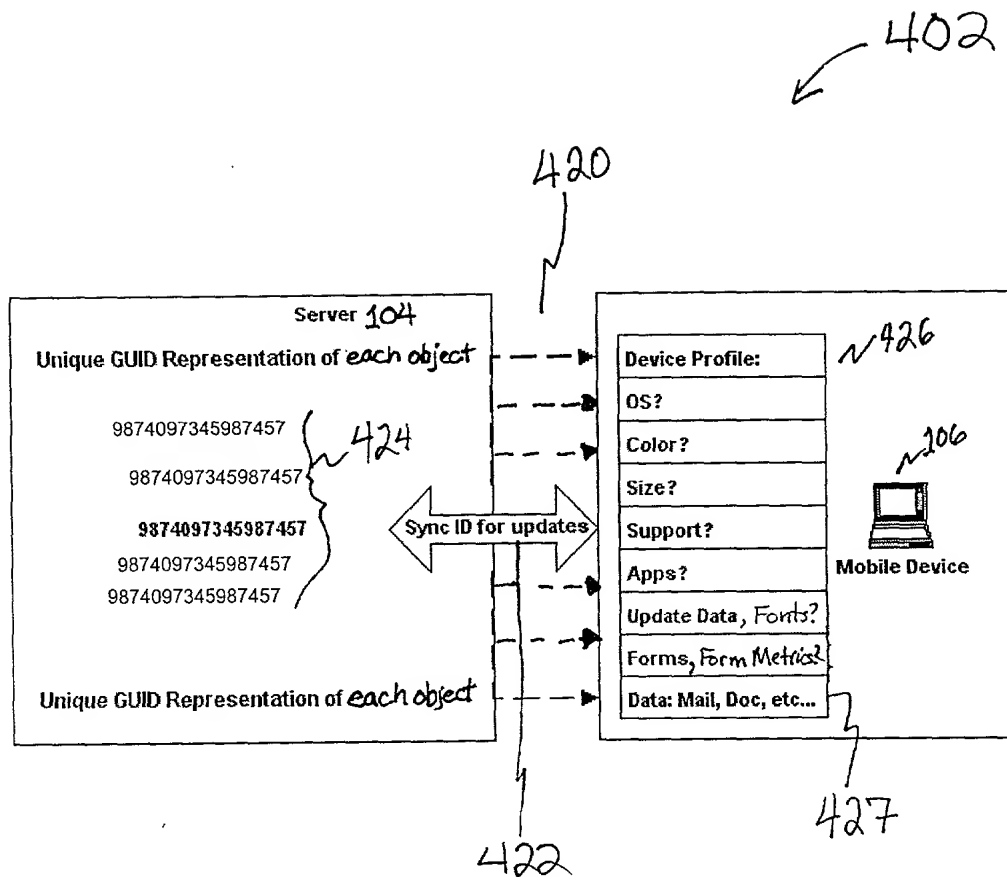
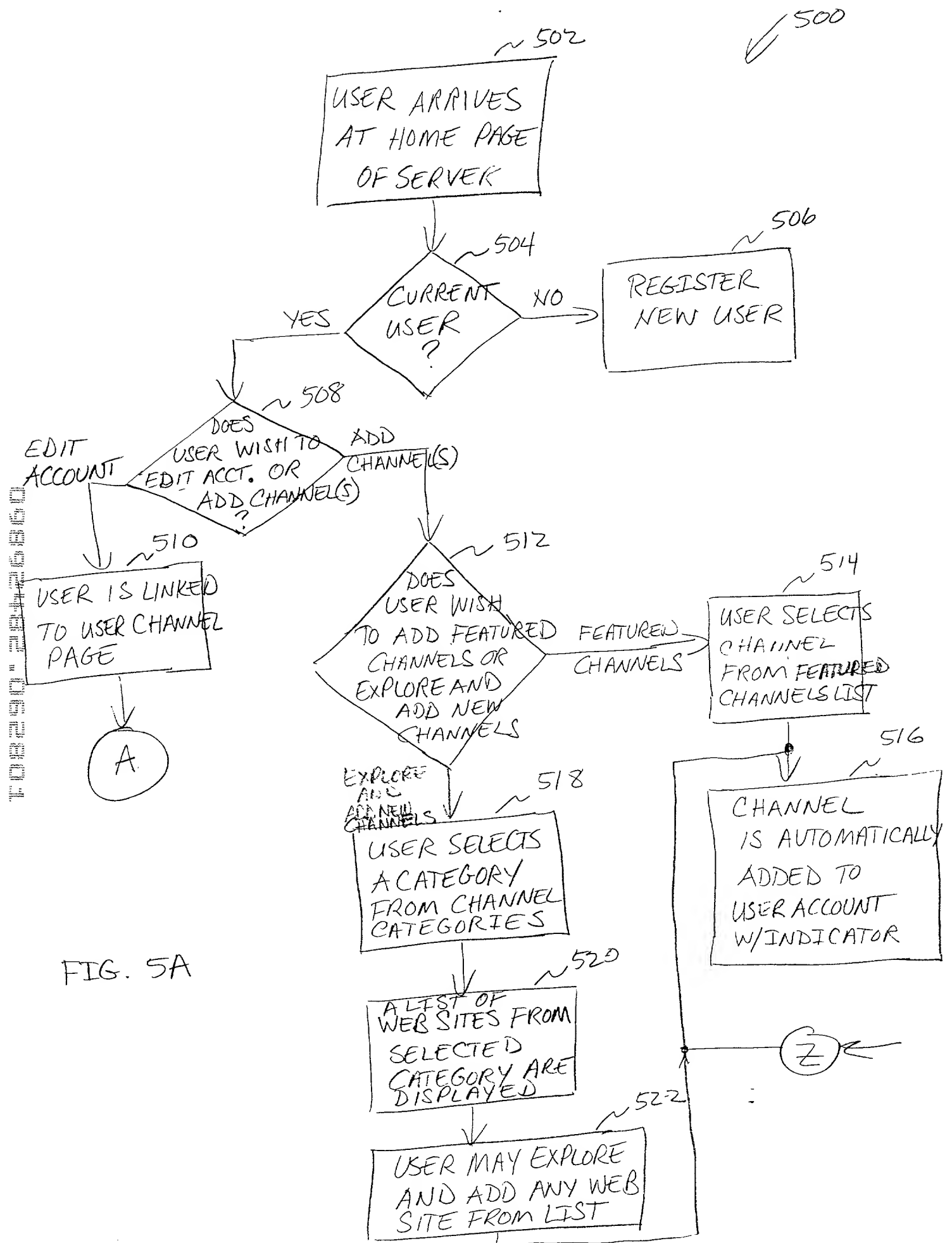


FIG. 4B



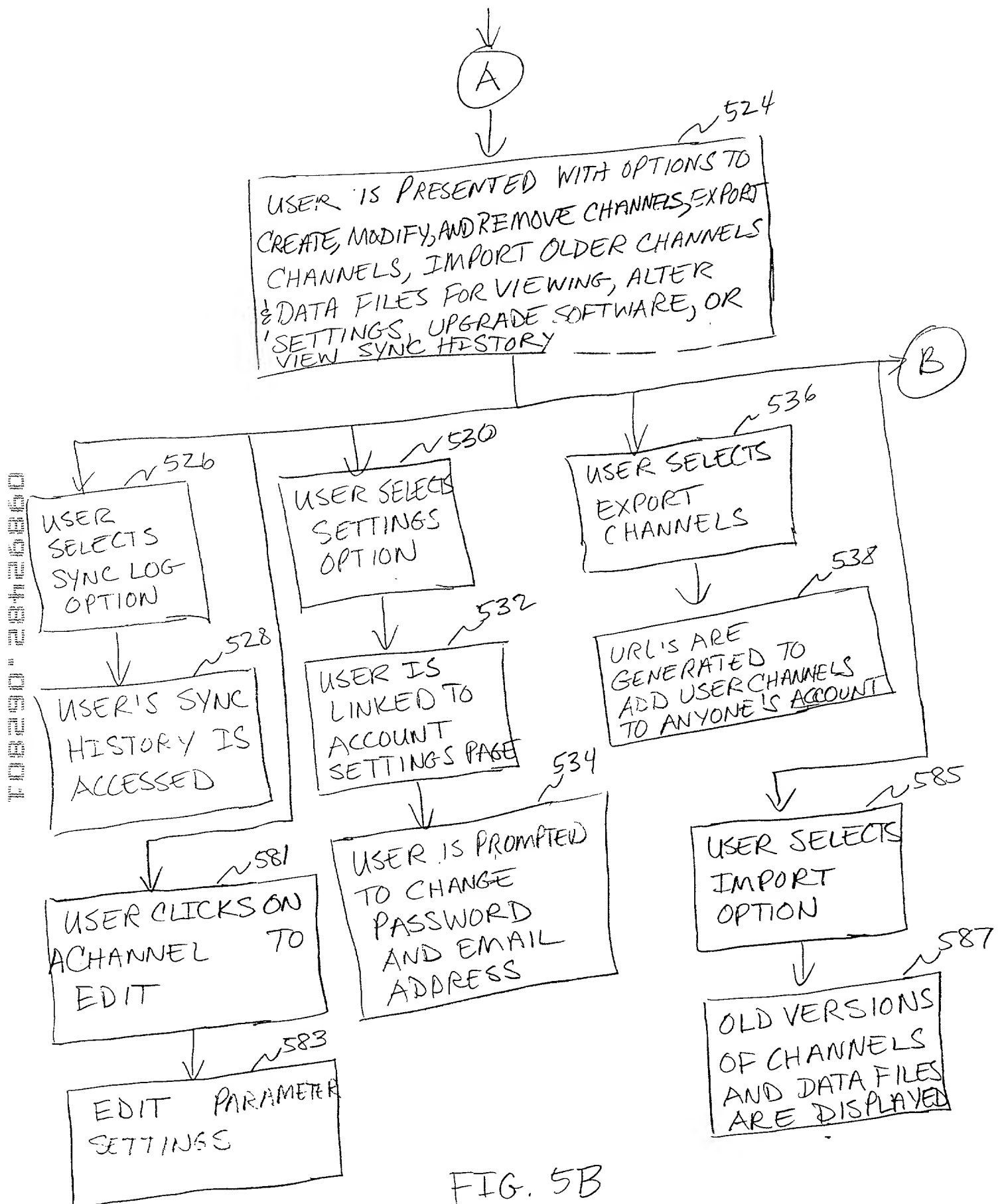
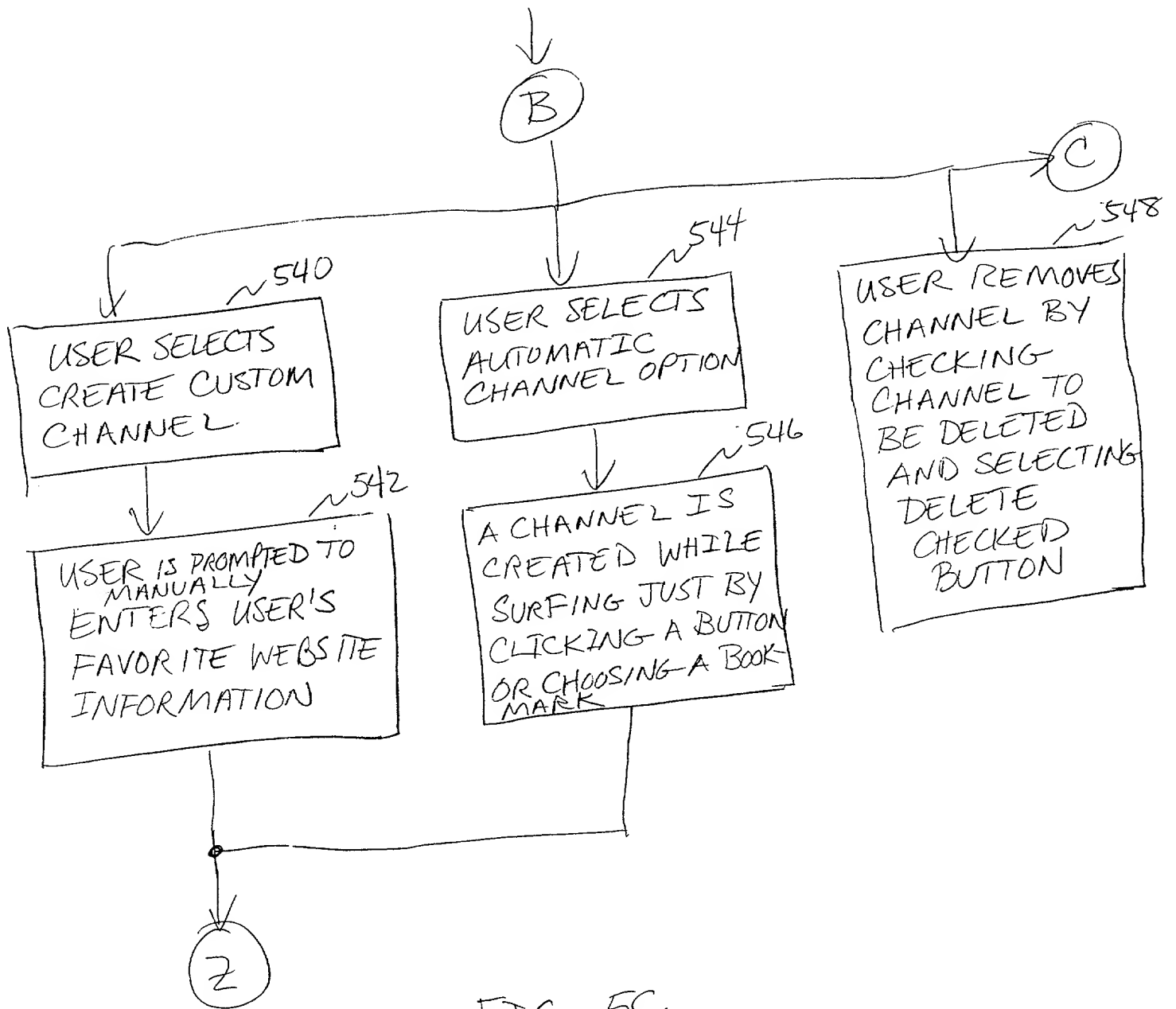


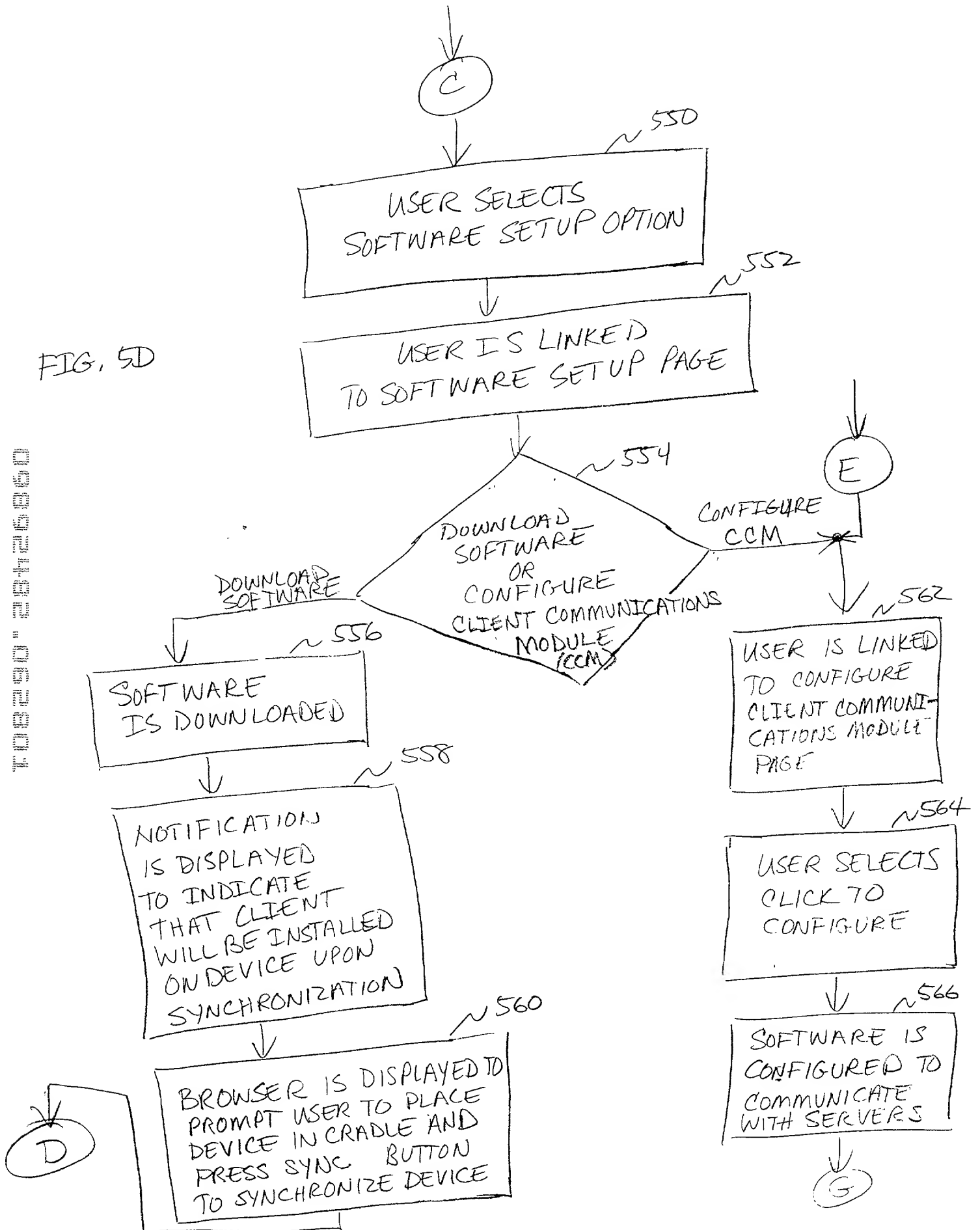
FIG. 5B



FIG. 5C



FIG, 5C



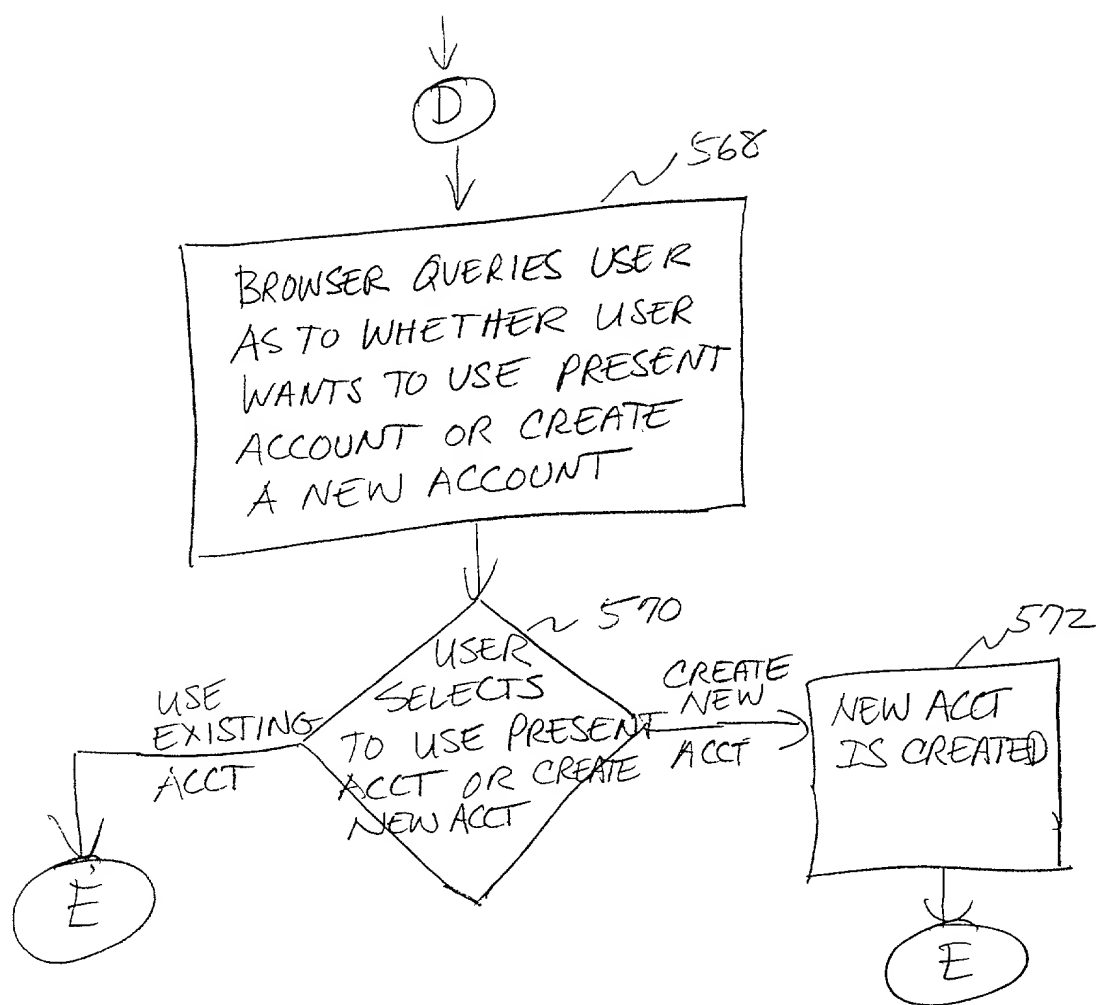
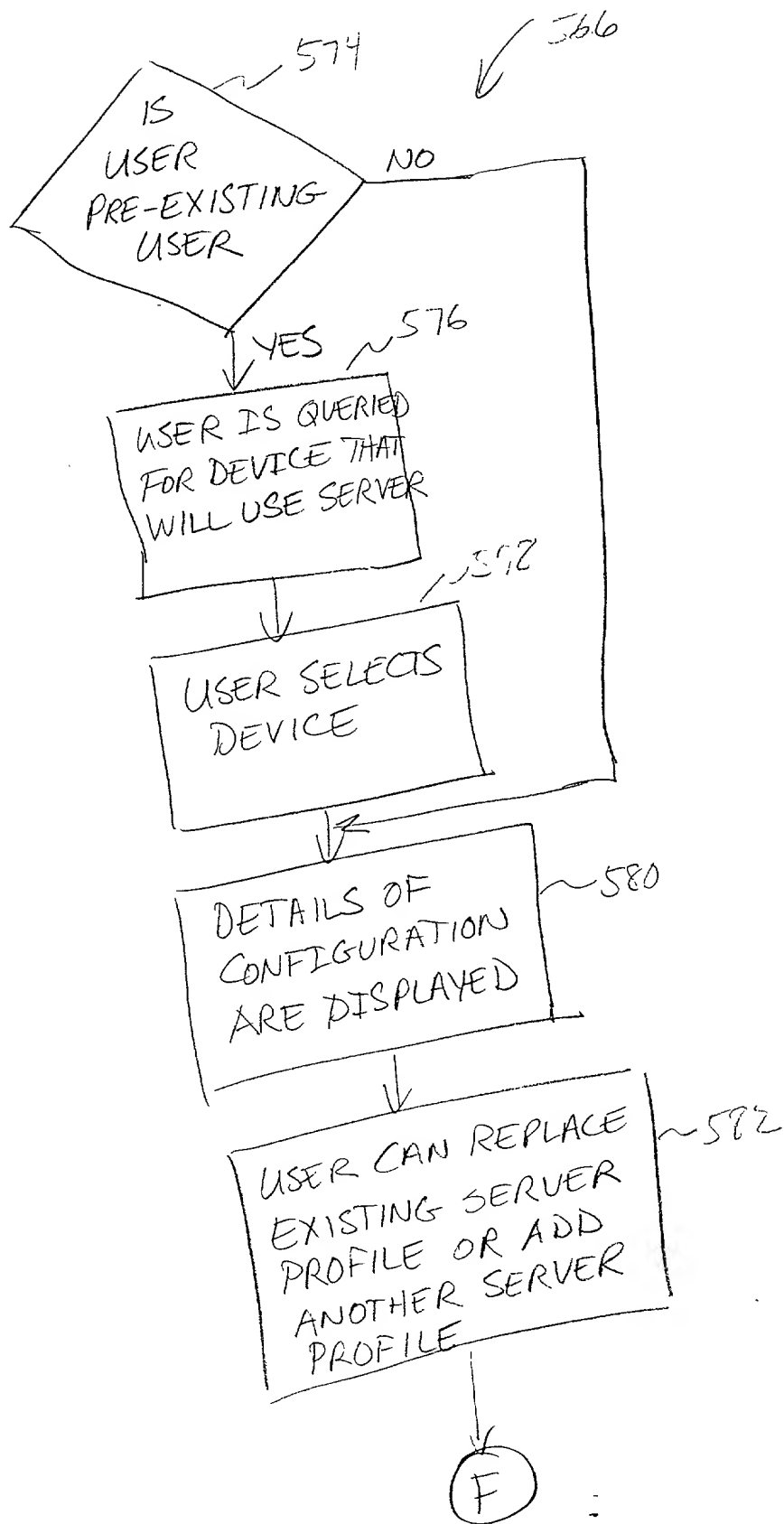


FIG. 5E

FIG. 5F



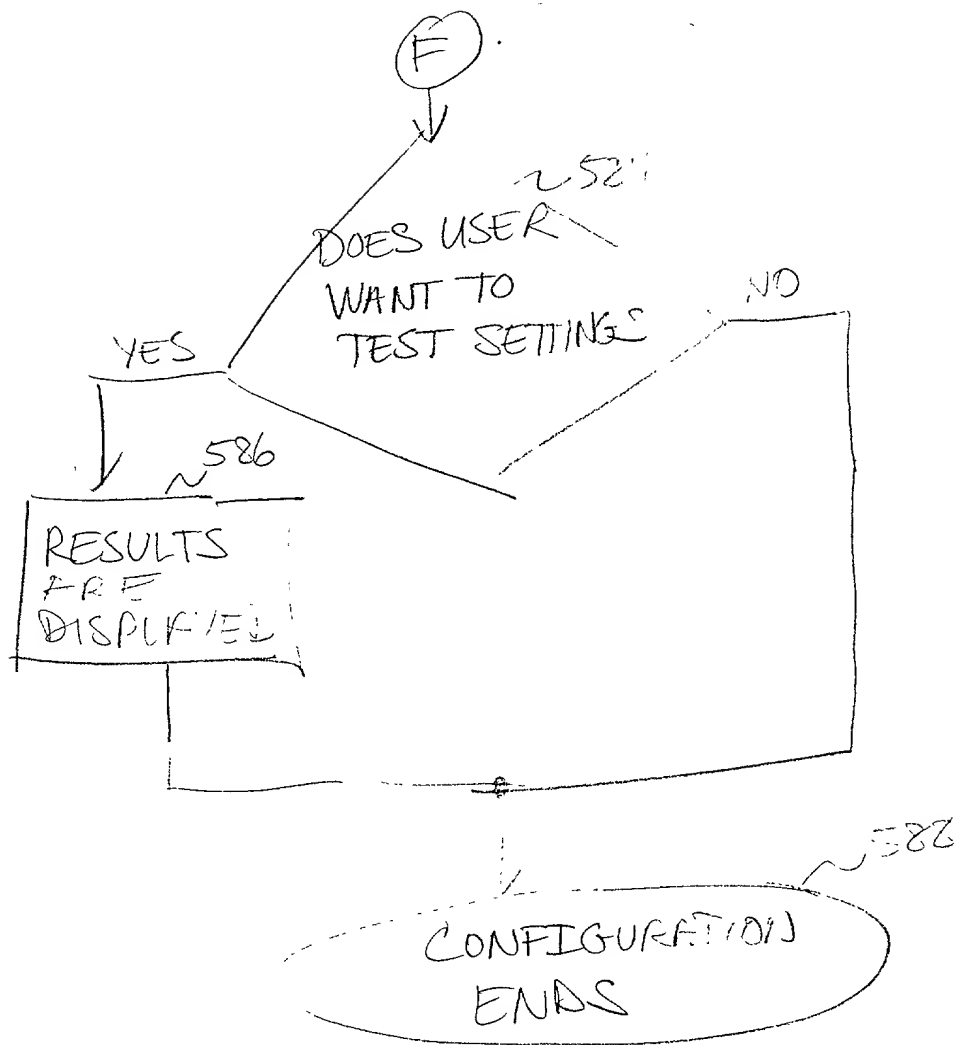


FIG. 3

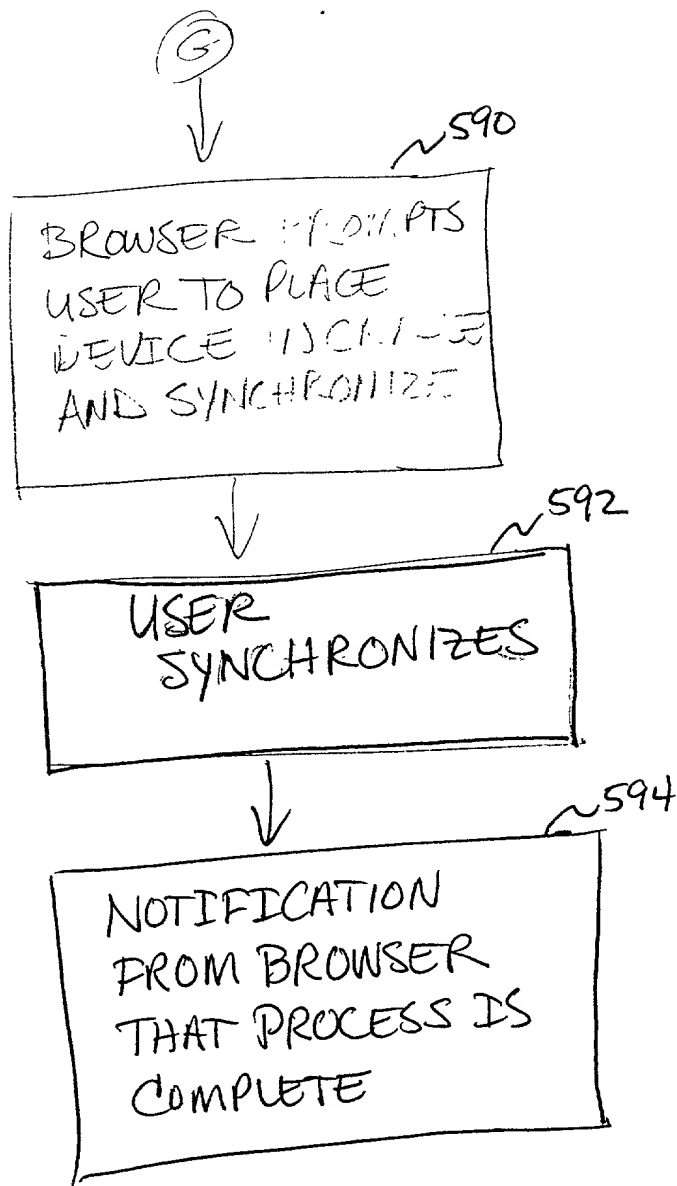
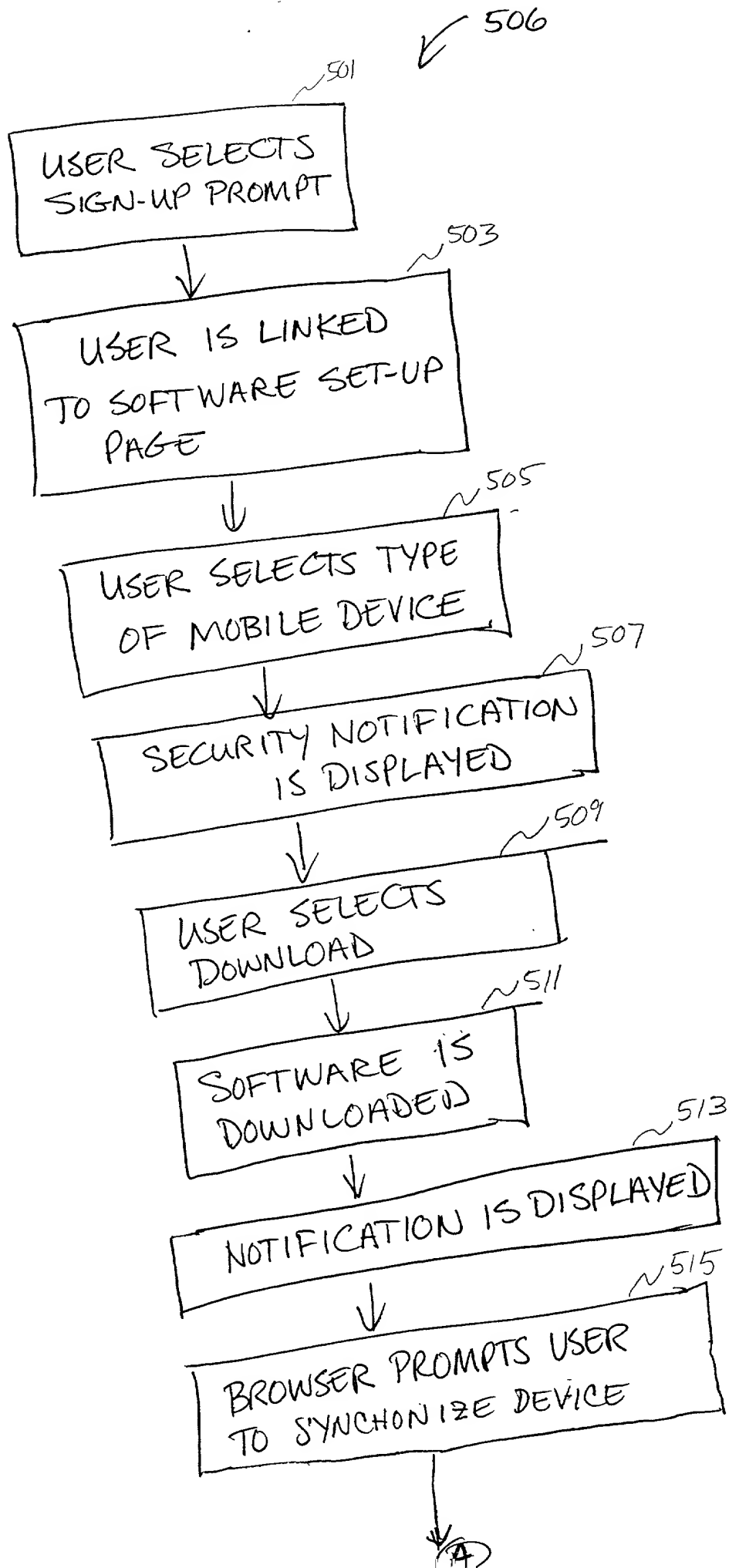


FIG. 5H



506 cont

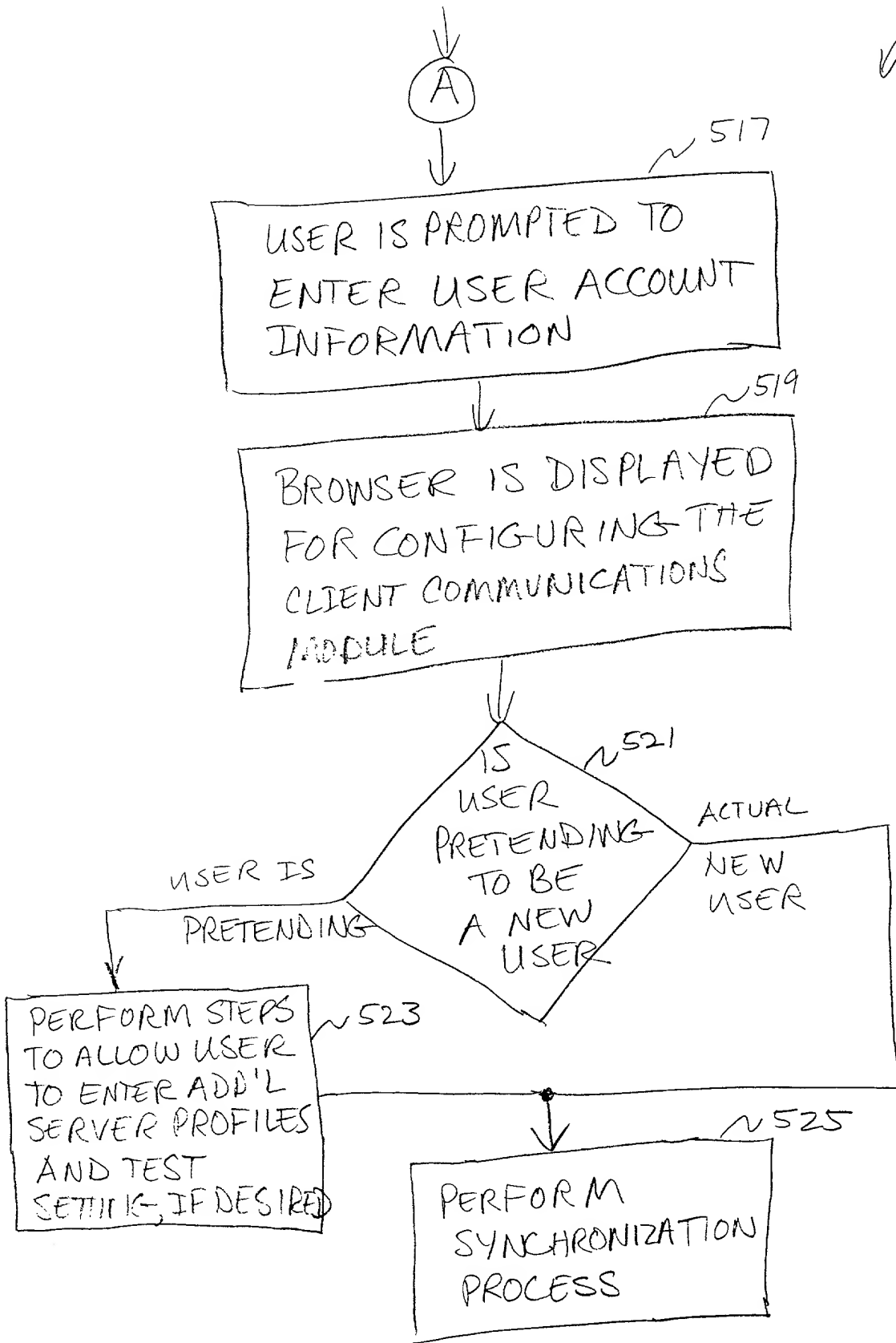


FIG. 5J



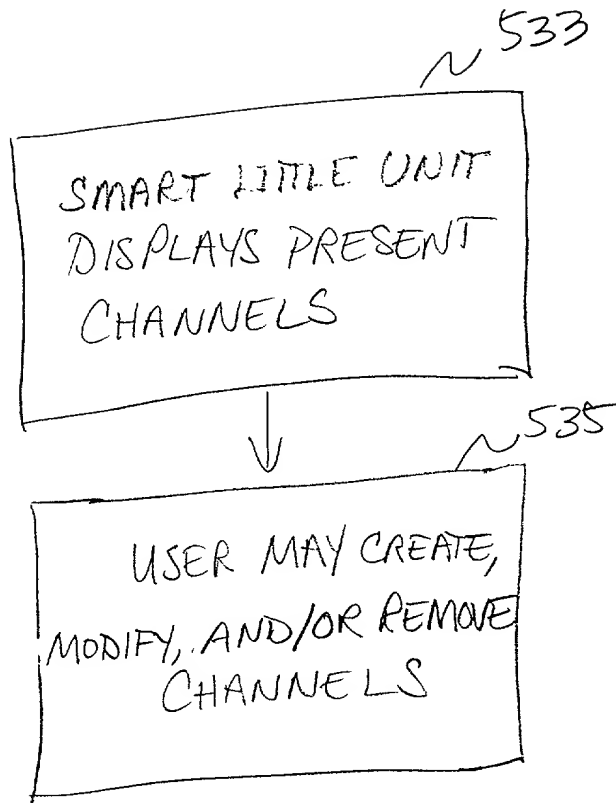


FIG. 5K

FIG. 5L

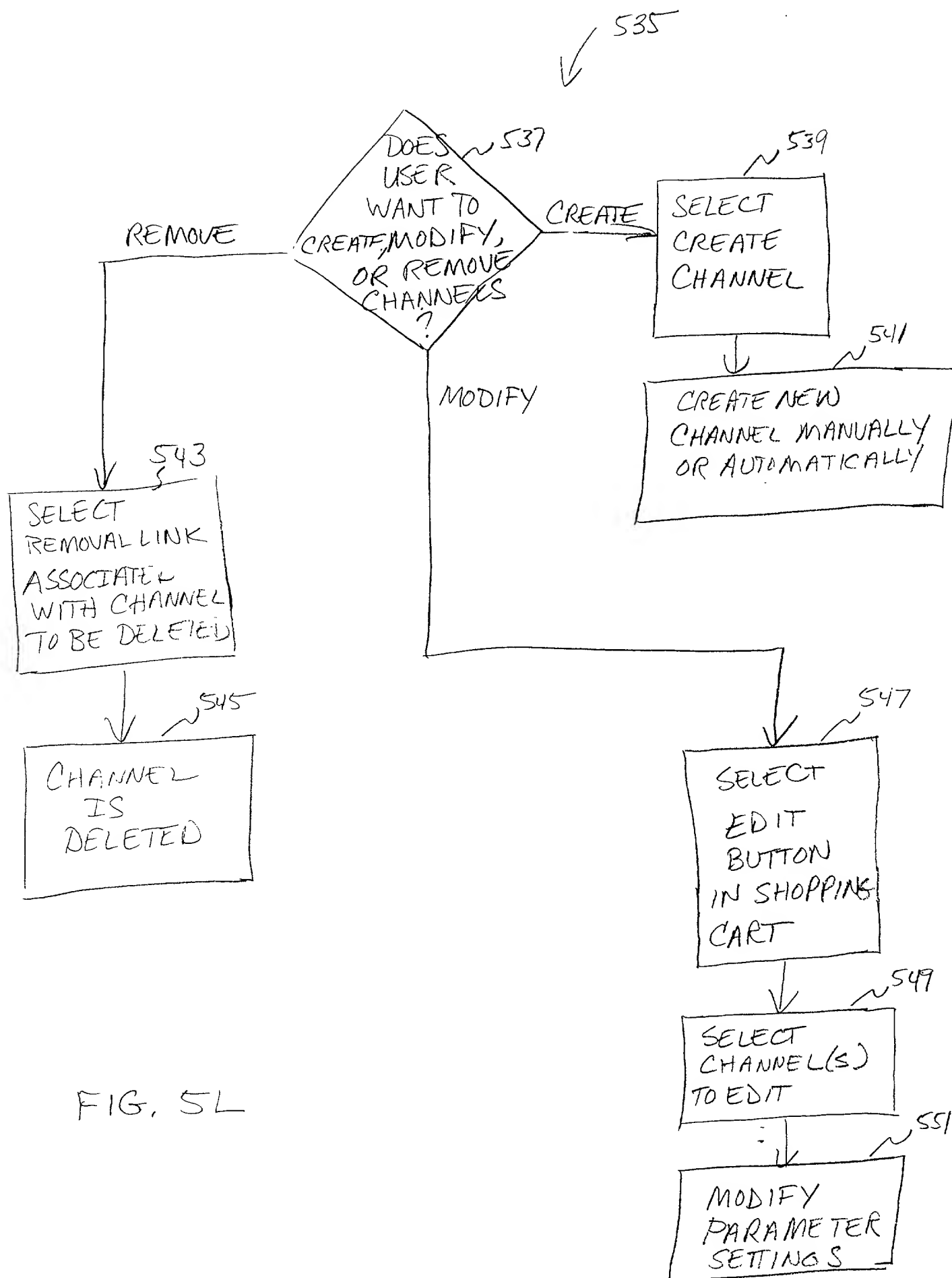


FIG. 5L

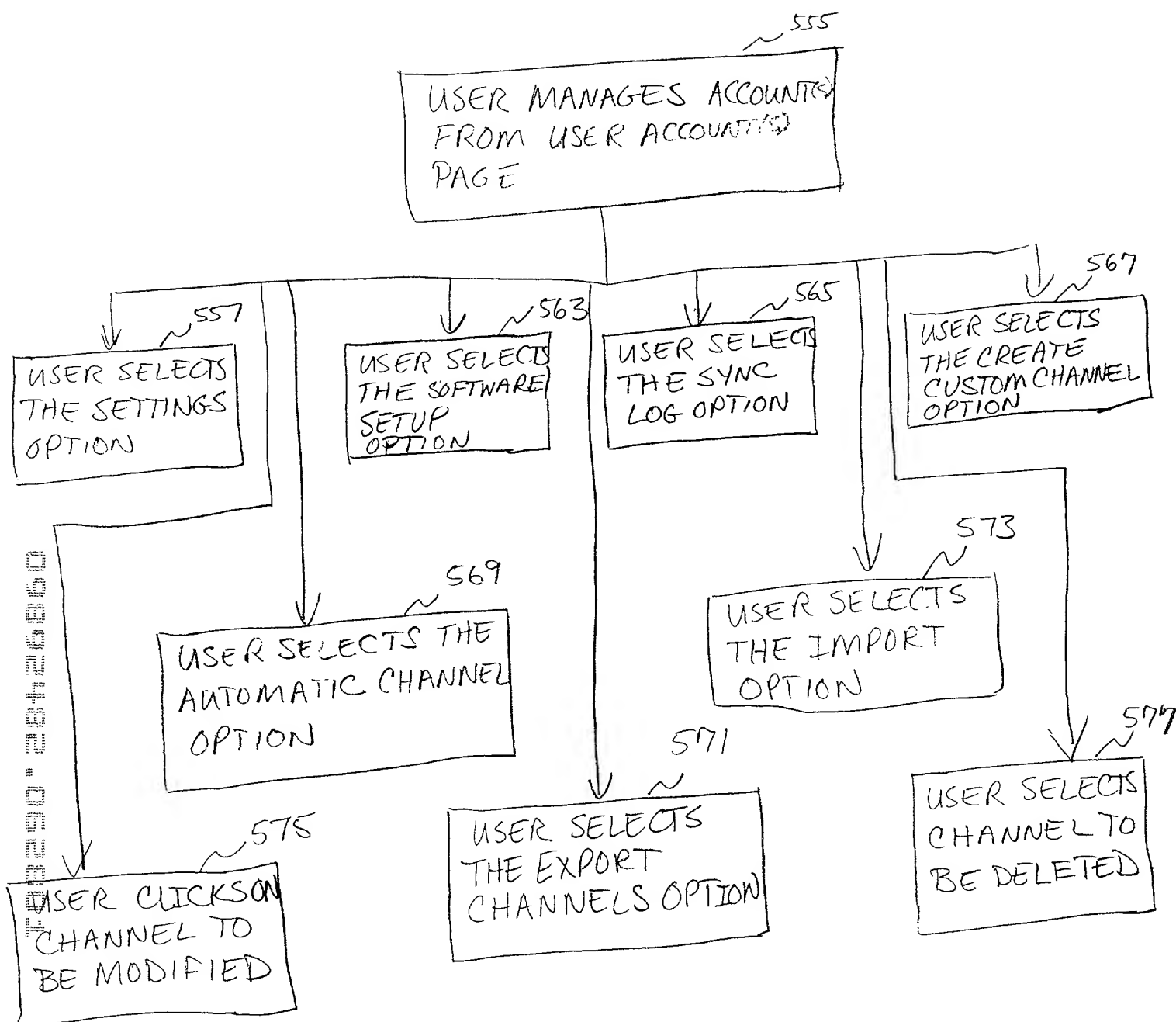




FIG. 5M

**Forms Manager**  

☐ 2:11p Maintenance Log success

☐ 2:12p Maintenance Log success

☐ 2:15p Service Request pending

---

FIG. 6

FIG. 7

**Stock Smart**  
- Home  
- Monitor List  
Up to 10 Tickers  
msft orcl  
Separate by Spaces  
**Update**  
Wednesday, MAY 05, 1999 05:53PM  
Copyright 1996-1999 Stock Smart  
all rights reserved

FIG. 7

File Edit Go Tools

**Channel Manager**

<input type="checkbox"/> My Sales Forms	1K
<input type="checkbox"/> Sales Demo	30K
<input type="checkbox"/> Sales Force Automation Forms	40K
<input type="checkbox"/> Survey	90K

**Select All** **Clear**

The Clear button will delete the selected channels from the device. These channels will come back the next time you sync.

Start [Keyboard Icon] [Up Arrow] [System Tray Icons] 4:25p

FIG. 8

**AvantGo Options** OK X

Browser Online

☒ Show Images

☒ Show Detailed Find Results

☐ Always Show Open Page Window

FIG. 9

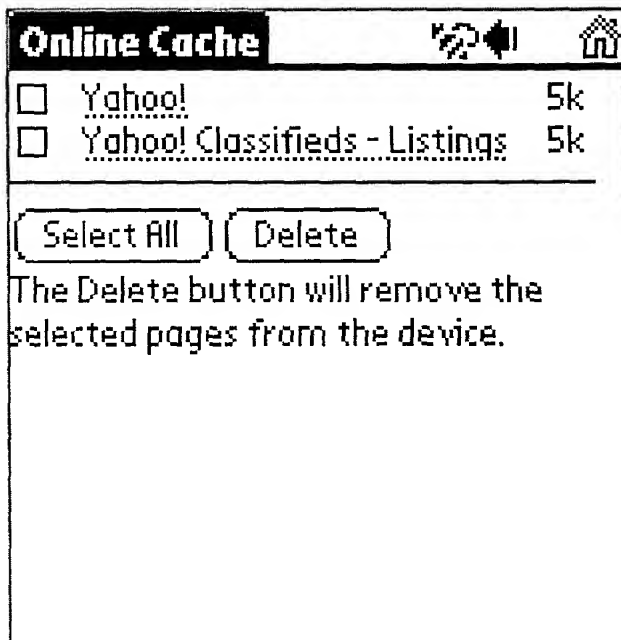


FIG. 10

1102

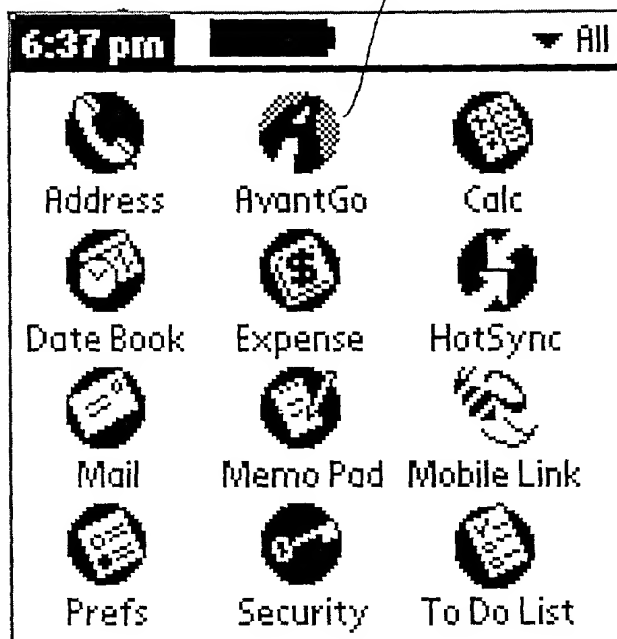


FIG. 11



FIG. 12





FIG. 13

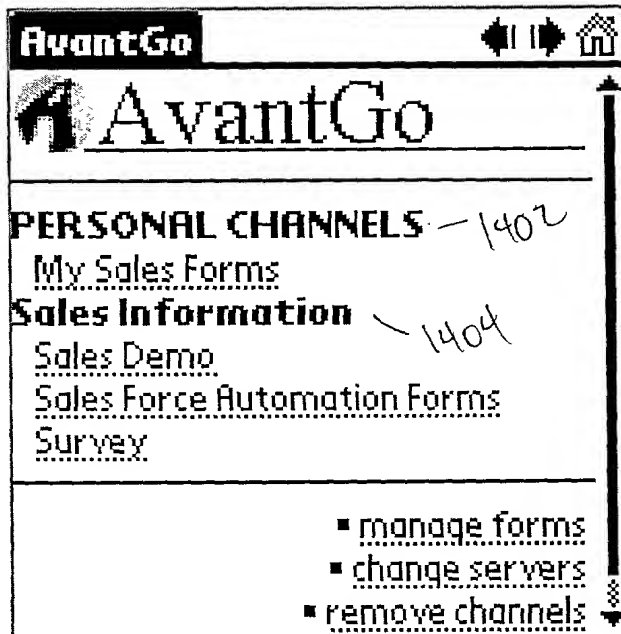


FIG. 14



AvantGo opens, showing your channels.  
Tap a channel's name to display it.

Fig. 15

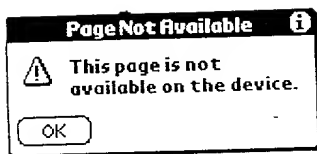


FIG. 46

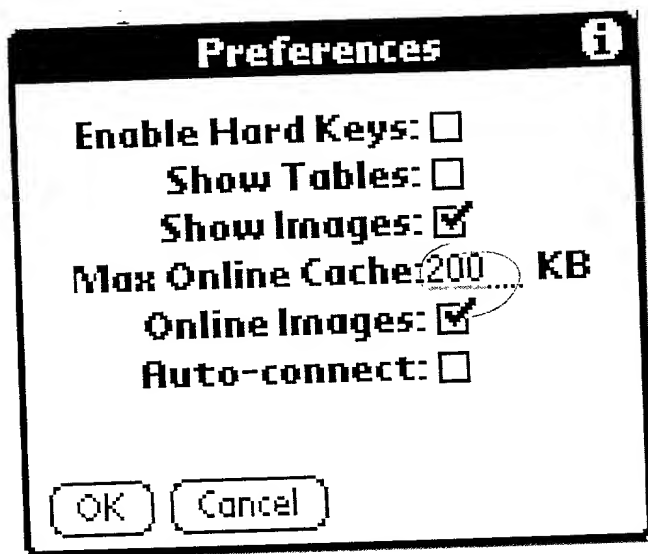
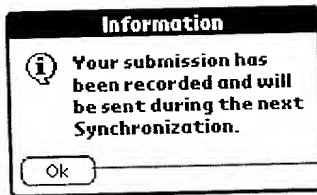


FIG. 17



FIG. 17



Click here to save the form and submit it the next time you sync.

FIG. 19

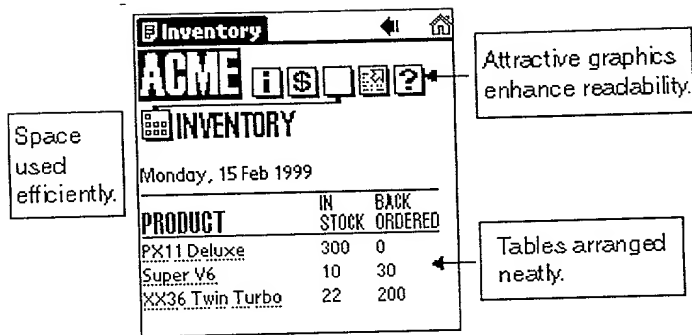
[illegible]

Fig. 20



Increase font

FIG. 21



Decrease font

FIG. 22



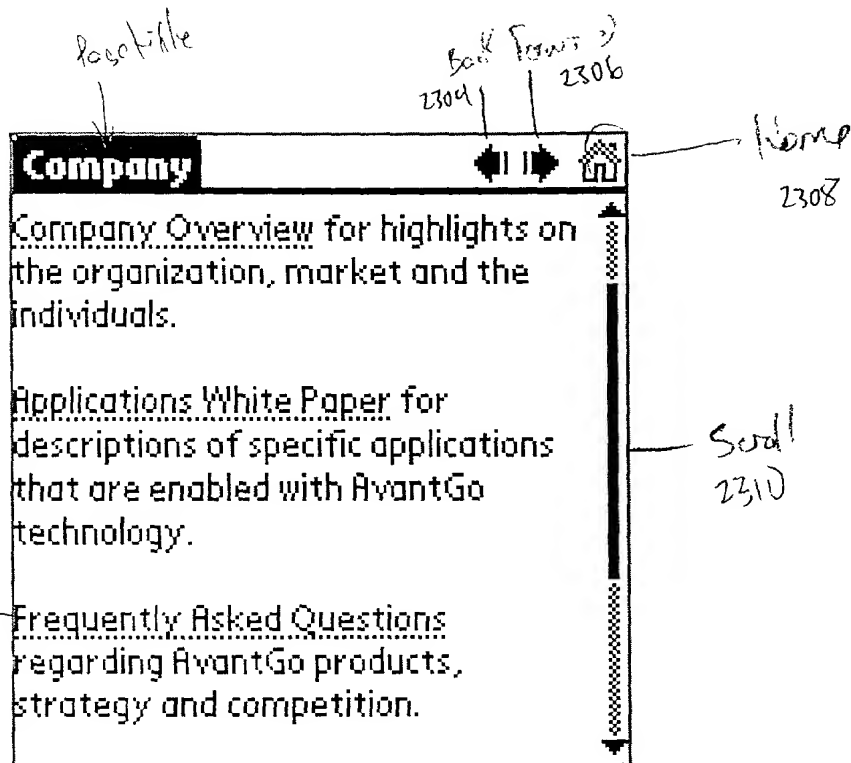


FIG. 23

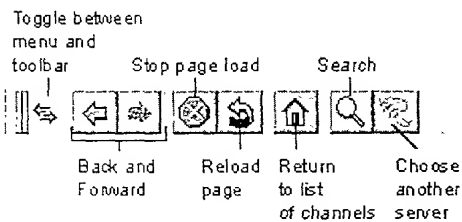


FIG. 24

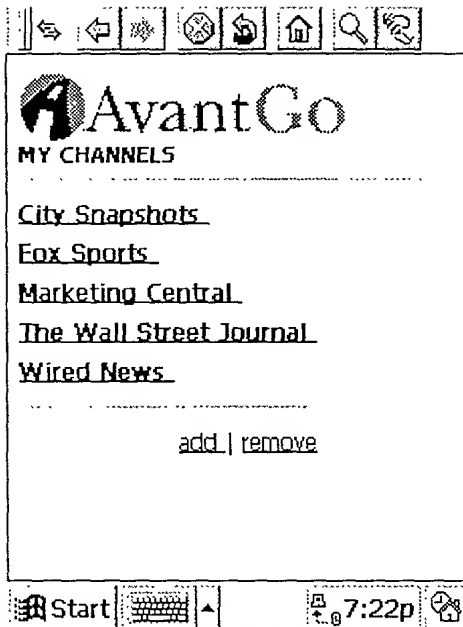


FIG. 25

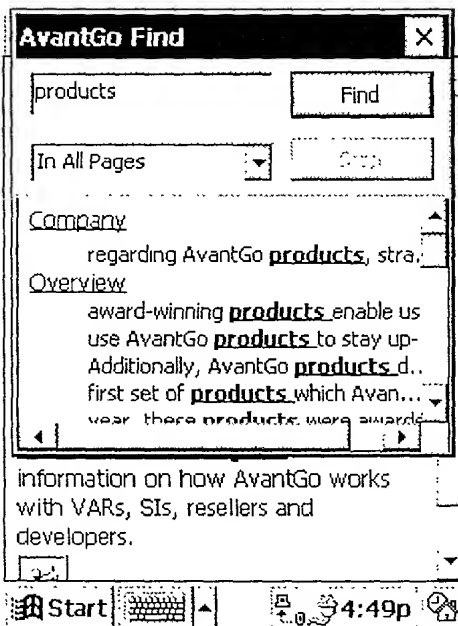


FIG. 26

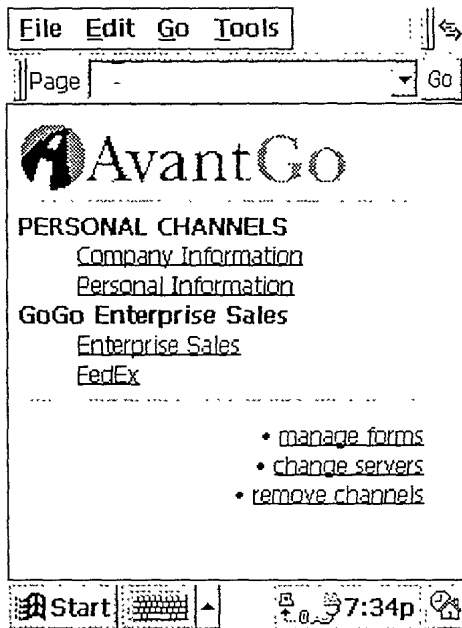


FIG. 27



# AvantGo Enterprise

Username

Password

☐ Remember me

Login

[Download Client Software](#)  
[View Client Guide](#)

Copyright ©1997-2000 AvantGo, Inc.  
Version 3.4.152 NT



Contains encryption software from  
RSA Data Security, Inc. Copyright ©  
1999-2000 RSA Data Security, Inc.  
All Rights Reserved.

FIG. 28



**AvantGo Enterprise**

## FEELINGS

## List All Users

## Reset

Legend

Fig. 29

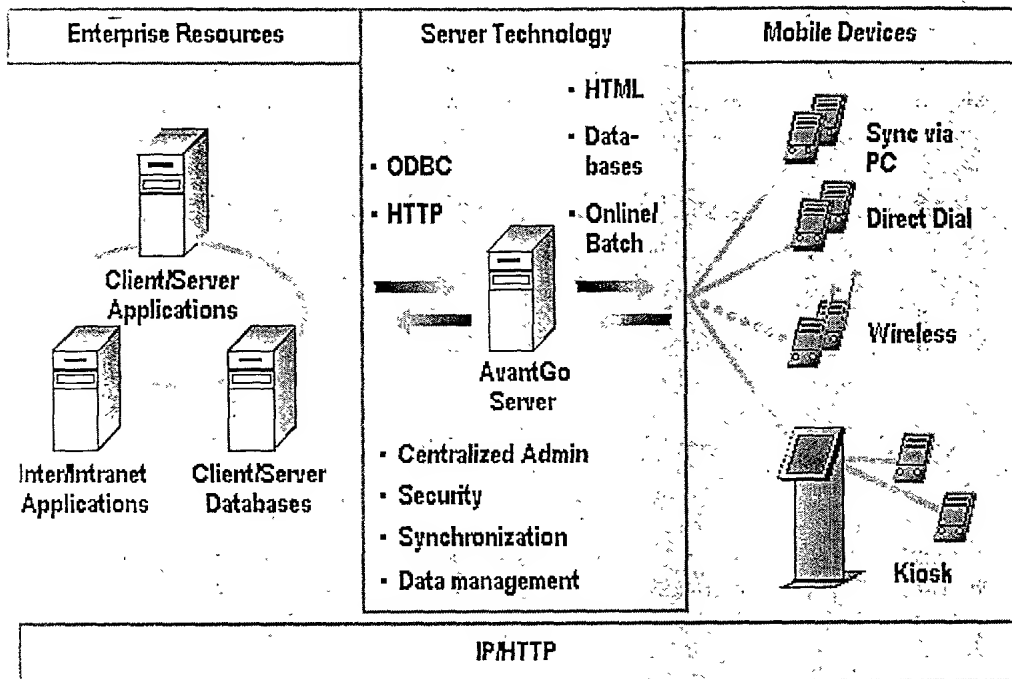


FIG. 30

403230"2372550

Enter: Tutorial      Click **View** to view/test the address of your channel.

Enter: http://  
syncdemo.avantgo.com/  
sfa\_3\_1/

### New Channel for User MobileUser

Title:	Untitled	<b>View</b>
Location:	http://	
Channel Size Limit:	100	
Link Depth:	0	
Include Images:	<input type="checkbox"/>	
Follow Off-Site Links:	<input type="checkbox"/>	
Allow Binary Distribution	<input type="checkbox"/>	
Hide from Users	<input type="checkbox"/>	
Send URLs	<input type="checkbox"/>	
Refresh:	<input type="radio"/> only once <input checked="" type="radio"/> every sync <input type="radio"/> hourly every <input type="text" value="0"/> hour(s) <input type="checkbox"/> only <input type="radio"/> daily	
	<input type="text" value="12"/> : <input type="text" value="00"/> <input checked="" type="radio"/> AM <input type="radio"/> PM	
	on days:	
	<input checked="" type="checkbox"/> Monday <input checked="" type="checkbox"/> Tuesday <input checked="" type="checkbox"/> Wedn	
	<input checked="" type="checkbox"/> Friday <input checked="" type="checkbox"/> Saturday <input checked="" type="checkbox"/> Sunda	
<b>Create</b> <b>Reset</b> <b>Cancel</b>		

Enter: 100

Enter: 3

Leave these fields unchecked.

Click the **only once** option.

Click the **Create** button.

FIG. 31

Refresh:

- ☒ on every sync
- ☐ every  hour(s)
- ☐ only once
- ☐ daily at :   on the following days:
  - ☒ Monday ☒ Tuesday ☒ Wednesday ☒ Thursday
  - ☒ Friday ☒ Saturday ☒ Sunday

---

When finished, click the "Save Channel" button:

FIG. 32



## Update User Membership for Group Travel Itinerary

Manage this group's user memberships by selecting/deselecting the user check boxes and clicking update. To view information about a particular user, click the hyperlink name of the user.

User Name:	<input type="text"/>
First Name:	<input type="text"/>
Last Name:	<input type="text"/>
<input type="button" value="Find User"/>	

## Search Results

User Name	Name
<input type="checkbox"/> <a href="#">Joia</a>	John Jack
<input checked="" type="checkbox"/> <a href="#">Natalie</a>	Natalie Doe
<input type="checkbox"/> <a href="#">new</a>	new test
<input type="button" value="Update"/> <input type="button" value="Reset"/> <input type="button" value="Return to Group"/>	

Edit server profileOKX

Server address

Hostname

Port

Your account

Username

Connection options

☒ Connect to this server.

☐ Refresh all content.

☒ Connect manually.

Start

5:11p

FIG. 34

FIG. 33

202503242660

MODE: Administrator

STATUS

USERS

GROUPS

SETTINGS

Ver. 3.2 Build 72

Help

Logout

TASKS

Find User

New User

List All Users

Modify Channels of Natalie

For more information or to modify or delete a specific channel, click on the title. To create a new personal channel, click the New Personal Channel link on the left.

Title	Total Size	Last Sync
Personal Channels		
Enterprise Intranet	0	Never Synced
Federal Express		
GoGo Enterprise Sales	7	Wed Oct 06, 1999 12:32:55
Enterprise Intranet for Sales	93	Wed Oct 06, 1999 12:32:55
FedEx	18	Wed Oct 06, 1999 12:32:55
Sales Force Automation Forms		
Travel Itinerary		
Total: 118KB		
<div>Create New Personal Channel</div> <div>Return to User</div>		

Recent Sync History

The three most recent synchronizations are logged below. More information can be found in the [Complete Sync History](#)

[Wed Oct 06, 1999 12:32:44] (12 seconds)

HTTP/1.1 404 File not found(404) - http://localhost/device/brand/avantgo/images/device/CE\_header.gif

[Wed Oct 06, 1999 12:32:34] (0 seconds)

Completely out of sync, resequencing...

[Wed Oct 06, 1999 12:31:35] (13 seconds)

HTTP/1.1 404 File not found(404) - http://localhost/device/brand/avantgo/images/device/CE\_header.gif

Clear Channel Cache

Clear Cookies

Clear Authentication Info

During synchronization, the server updates existing channels and pages with modifications only. Clearing the channel cache will force all the channels and pages to be transferred to the device during the next synchronization.

Cookies containing profile information about you are placed in your user profile by the sites that you visit. Clearing the cookies database may remove personalized information stored on your device by the web servers that you visit. Clearing cookies will disable the "remember me" feature from the login prompt.

Some web servers require you to supply a user name and password to access the site. The server caches this authentication information and supplies it to the web server during synchronization. Clearing the authentication database will usually require you to reenter your user name and password the next time you visit a site that requires authentication.

FIG. 35

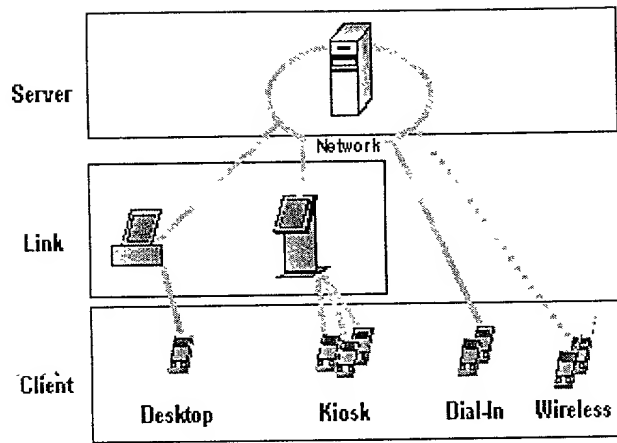


FIG. 3b

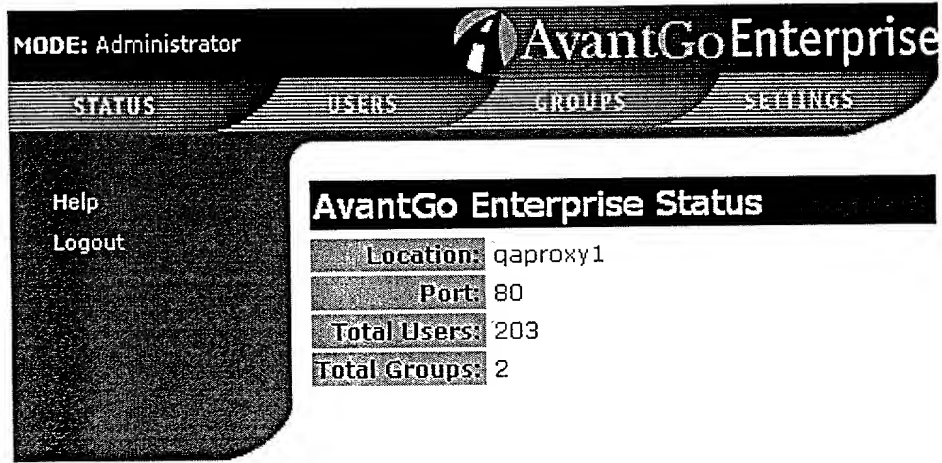


FIG. 37

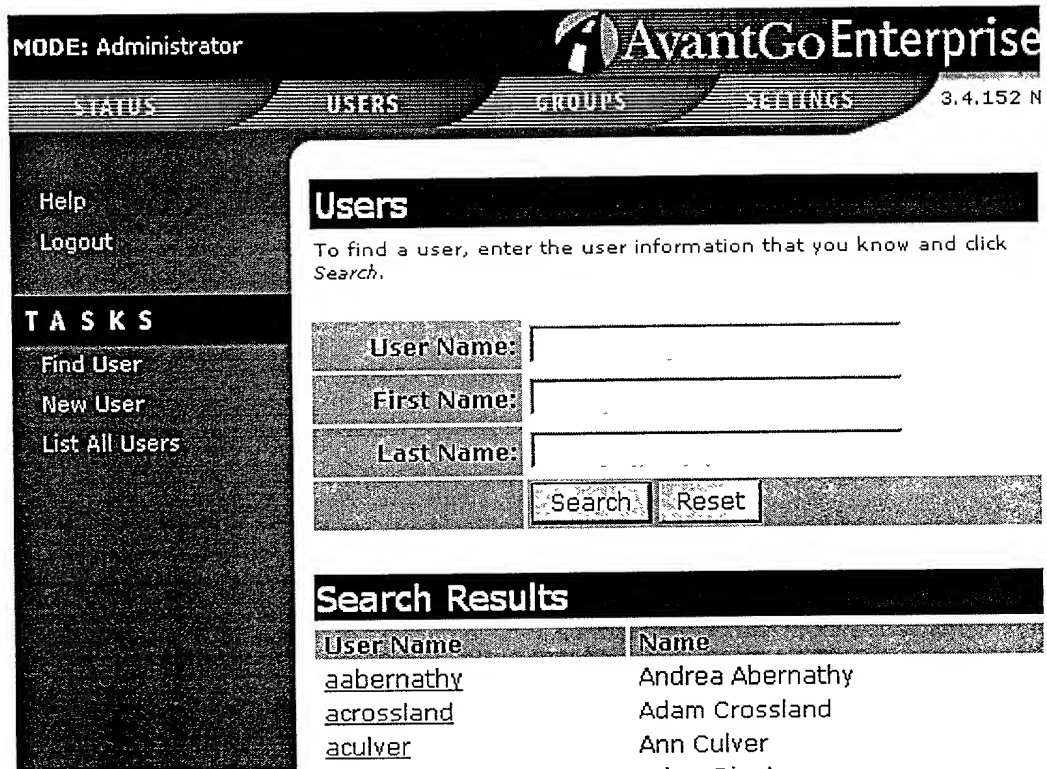


FIG. 38

MODE: Administrator

AvantGoEnterprise

STATUS

USERS

GROUPS

SETTINGS

3.4.152 NT

Help

Logout

### TASKS

Find User

New User

List All Users

### User Detail

To modify this user's user name, name, or password, edit the appropriate fields and click 'Save'. This user's personal channels and group memberships may also be edited.

### Adam Crossland

User Name:	<input type="text" value="acrossland"/>
First Name:	<input type="text" value="Adam"/>
Last Name:	<input type="text" value="Crossland"/>
Password:	<input type="password"/>
Confirm Password:	<input type="password"/>
<input type="button" value="Save"/> <input type="button" value="Delete..."/> <input type="button" value="Reset"/>	

FIG. 39

T03230"2342550

STATUS

USERS

GROUPS

SETTINGS

3.4.152 NT

Help  
Logout

TASKS  
List All Groups  
New Group

Modify Group test group 1

Modify this group's name and description by editing the fields and clicking Save. To manage this group's users or channels, click 'Add/Remove Users'. To create a channel for this group, click 'New Group Channel'. To edit this group's channel, click on its name.

Name:

test group 1

Description:

test

Save

Delete...

Reset

Group Members

User Name	Name
<a href="#">drice</a>	David Rice
<a href="#">dylan</a>	Dylan McDanniel
<a href="#">rafael</a>	Rafael Weinstein
<a href="#">robert</a>	Robert Otani

Add/Remove Users

Group Channels

FIG. 40

MODE: Administrator

AvantGoEnterprise

3.4.152 NT

STATUS

USERS

GROUPS

SETTINGS

Help  
Logout

TASKS  
List All Groups  
New Group

Groups

Modify or view a group by clicking on its name.

Group Name	Description
<a href="#">asdf</a>	
<a href="#">test group 1</a>	test

FIG. 41

MODE: Administrator

AvantGo Enterprise

3.4.152 N

STATUS USERS GROUPS SETTINGS

Help  
Logout

**TASKS**

Change Admin Password  
PalmOS Download  
WinCE Download

**Admin Settings**

Old Password:

New Password:

Confirm New Password:

Save Reset

FIG. 42

FIG. 42

AvantGo - Microsoft Internet Explorer


Address: nnel\_properties.html?cha\_id=2928246 Go

My Channels  
Settings  
Software Setup  
Sync Log

## CHANNEL PROPERTIES

BACK TO CHANNELS

CHANNEL TITLE

 Fox Sports

CHANNEL SIZE

Maximum Channel Size: 100 k

Link Depth: 2

Include Images: ☒ Yes ☐ No

Follow Off-Site Links: ☒ Yes ☐ No

CHANNEL REFRESH

REFRESH:

☒ on every sync

☐ every 0 hour(s)

☐ only once

☐ daily at 12:00 AM on the following days:

☒ Monday ☒ Tuesday ☒ Wednesday ☒ Thursday

☒ Friday ☒ Saturday ☒ Sunday

SAVE CHANNEL CHANGES

FIG. 43



## AUTOCHANNEL™

[BACK TO CHANNELS](#)

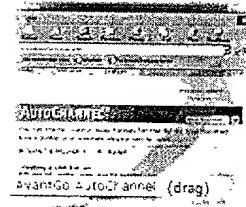
You can create AvantGo AutoChannels "on the fly" for your handheld from a button or a bookmark on your web browser.

INTERNET EXPLORER 4.0 OR HIGHER

### Creating a Link Button

With your links toolbar visible, drag the AvantGo AutoChannel™ link below to the toolbar. Clicking on the button while browsing a website will let you add that website to your handheld device.

Drag this link: [AvantGo AutoChannel](#)



### Creating a Bookmark

Right-click on AvantGo AutoChannel™ link below and select "Add to Favorites...". Choosing this in your favorites will let you add the website you are browsing as an AvantGo channel on your handheld.

Right-click this link: [AvantGo AutoChannel](#)

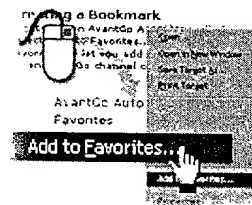


FIG. 44

AvanGo - Microsoft Internet Explorer

Address: https://avanigo.com/mydevice/creat Go

My ACCOUNT

My Channels

Settings

Software Setup

Sync Log

AUTOCHANNEL (TM)

Take your favorite websites with you

You can create AvantGo AutoChannels on the fly for your handheld from a button or a bookmark on your web browser.

## CREATE CHANNEL

BACK TO CHANNELS

CHANNEL TITLE

Title: Untitled

Location (URL): http:// View

CHANNEL SIZE

Maximum Channel Size: 100 k

Link Depth: 0

Include Images: ☐ Yes ☒ No

Follow Off-Site Links: ☐ Yes ☒ No

CHANNEL REFRESH

REFRESH:

☒ on every sync

☐ every 2 hour(s)

☐ only once

☐ daily at 12:00 AM on the following days:

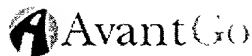
☒ Monday ☒ Tuesday ☒ Wednesday ☒ Thursday

☒ Friday ☒ Saturday ☒ Sunday

SAVE CHANNEL

FIG. 45

20080901 20:46:50



SEARCH CHANNELS

Look For:  GO

CHANNEL CATEGORIES

new channels

[Business](#) [16]

[City/Regional](#) [11]

[Entertainment](#) [12]

[Lifestyle](#) [57]

[News](#) [24]

[SciTech](#) [1]

[Sports](#) [13]

[Travel](#) [4]

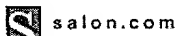
[Weather](#) [29]

[Wireless](#) [22]

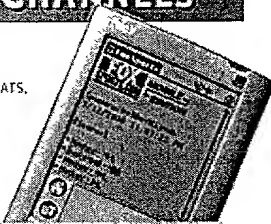
4604  
**FEATURED CHANNELS**



UP-TO-THE-MINUTE SCORES, STATS, STORIES AND COMMENTARY.



A DISTINCTIVE VOICE ON NEWS, POLITICS AND OPINION.



COOL CHANNELS [AVANTGO STAFF FAVORITES]

[Autobytel](#)

Buy your next car or keep up to date with your current car's maintenance - all from your handheld.

[Hollywood.com](#)

Have movie listings for your zip code right at your fingertips.

[Restaurant Row](#)

Find a great restaurant in your area and even make reservations wirelessly.

[MyDocsOnline](#)

Sync your desktop documents to your handheld or wirelessly email them to friends or colleagues.

Welcome, dkoehn68

[Log out](#)

My Account EDIT

Fox Sports

Hoover's IPO Update

The Wall Street Journal

The Weather Channel

Upside Today

Wired News

Yahoo!

[CREATE CHANNEL](#)

4606

4608

4610

4612

4614

4616

4602

FS6.46

MY ACCOUNT

[My Channels](#)  
[Settings](#)  
[Software Setup](#)  
[Sync Log](#)

MY CHANNELS

BACK TO CHANNELS

ESTIMATED TOTAL SIZE FOR 7 CHANNELS: 253k  
TOTAL MAX SIZE FOR 7 CHANNELS: 480k

<input type="checkbox"/> <a href="#">Fox Sports</a>	26k
<input type="checkbox"/> <a href="#">Hoover's IPO Update</a>	7k
<input type="checkbox"/> <a href="#">The Wall Street Journal</a>	10k
<input type="checkbox"/> <a href="#">The Weather Channel</a>	6k
<input type="checkbox"/> <a href="#">Upside Today</a>	35k
<input type="checkbox"/> <a href="#">Wired News</a>	69k
<input type="checkbox"/> <a href="#">Yahoo!</a>	(estimated) 100k

DELETE CHECKED

CHANNEL TOOLS

[Create Custom Channel](#)

Add your own favorite website to your handheld device.

[AvantGo AutoChannels™](#)

Create a channel for your handheld while surfing just by clicking a button or choosing a bookmark.

[Export Channels](#)

Generate URLs which can be used to add your channels to anyone's account.

[Import AvantGo version 1.x Channels](#)

Migrate older channels.data files for viewing on your latest AvantGo 3.x software.

FIG. 17

FIG. 48 "23726860"

- MY ACCOUNT
- My Channels
- Settings
- Software Setup
- Sync Log

ACCOUNT SETTINGS

BACK TO CHANNELS

CHANGE PASSWORD

You will be asked to update changes to your device from this website. If you've forgotten your password, you can [request a password reset](#).

Old Password:

New password:

Confirm password:

Change password

CHANGE EMAIL ADDRESS

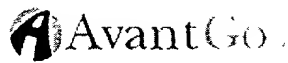
This is where password reset messages will be sent if you forget your username or password.

Password:

New email address: dkoehn@avantgo.cc

Submit

FIG. 48



Welcome, dkoehn68

[Log out](#)

MY ACCOUNT

[My Channels](#)

[Settings](#)

[Software Setup](#)

[Sync Log](#)

SOFTWARE SETUP

[BACK TO CHANNELS](#)

- ▶ [Download AvantGo Palm OS Client](#) (Windows)
- ▶ [Download AvantGo Windows\(R\) CE Client](#) (Windows)
- ▶ [Download AvantGo Connect™](#) (Macintosh)
- ▶ [Configure Mobile Application Link](#)

**To check your AvantGo Client version:**

Tap *Tools* > *About AvantGo* on CE

or

*Menu* > *Options* > *About AvantGo* on Palm Devices.

The About AvantGo panel appears. On the bottom left is your version number.

[Update](#)

FIG. 49

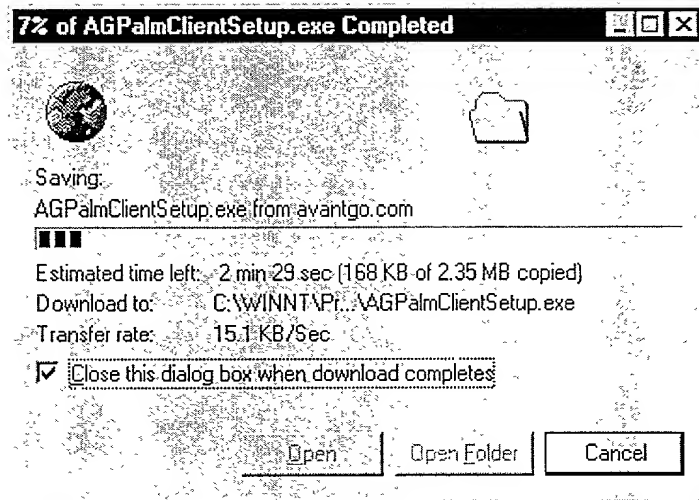


FIG. 50

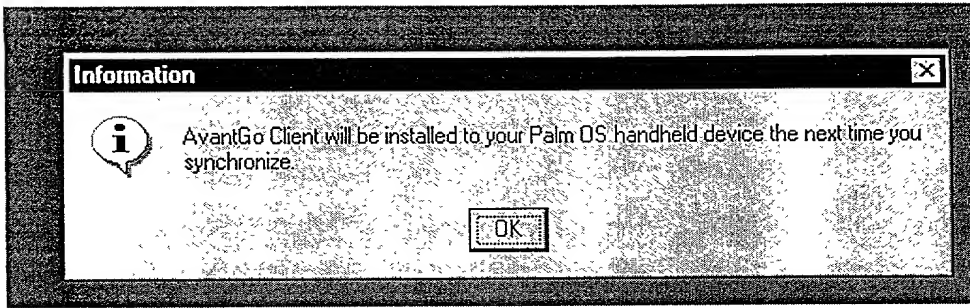
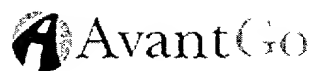


FIG. 51





#### SETUP CHECKLIST

DOWNLOAD

▶ INSTALL

SYNCHRONIZE

CREATE ACCOUNT

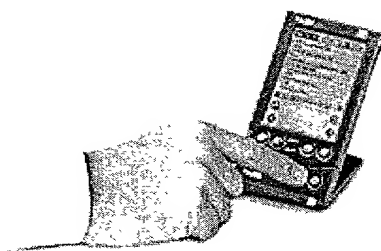
CONFIGURE

NEXT

## SYNCHRONIZE

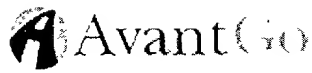
Place your device in its cradle and press the HotSync button.

When you synchronize, AvantGo 3.x will be installed on your device. After synchronization is complete, click the "Next" button at the bottom of the page.



NEXT >>

FIG. 52



#### SETUP CHECKLIST

- GET DOWNLOAD
- INSTALL
- GET SYNCHRONIZE
- ▶ CREATE ACCOUNT
- GET HIGH RES
- GET SYNCHRONIZE

### USE EXISTING ACCOUNT?

Select below to use this account or to create a new one

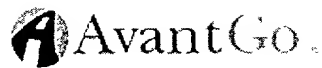
Username: **dkoehn68**

Email: **dkoehn@avantgo.com**

- ☒ Use this account
- ☐ Create a new account

**NEXT >>**

FIG. 53



#### SETUP CHECKLIST

DOWNLOAD

INSTALL

SYNCHRONIZE

UPDATE

► CONFIGURE

SYNCHRONIZE

### CONFIGURE MOBILE LINK

Click the link below to configure Mobile Link™

By clicking below, you will ensure your AvantGo 3.x software is communicating properly with AvantGo's servers.

CLICK HERE  
TO CONFIGURE

5402

NEXT >>

FIG. 54

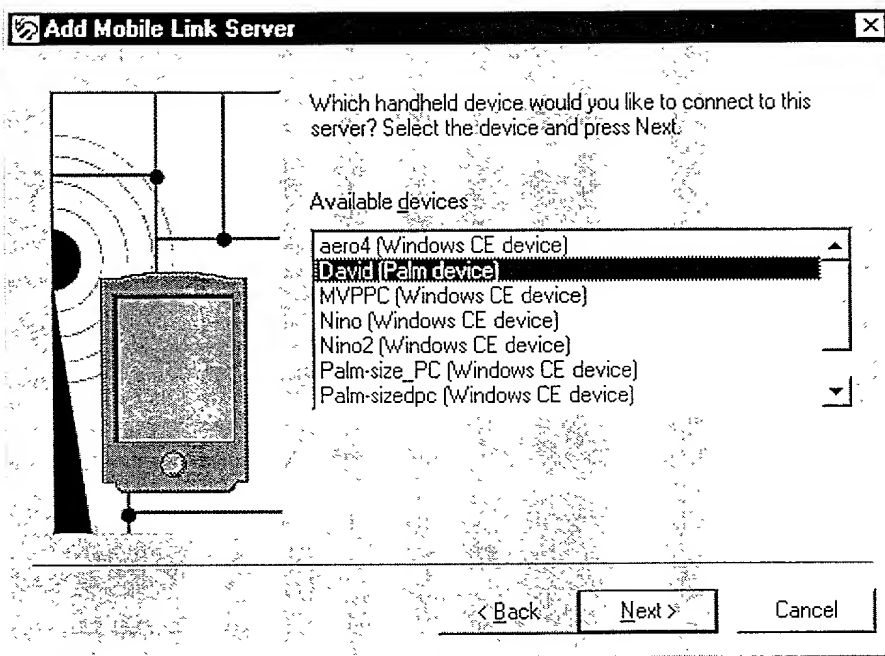


FIG. 55

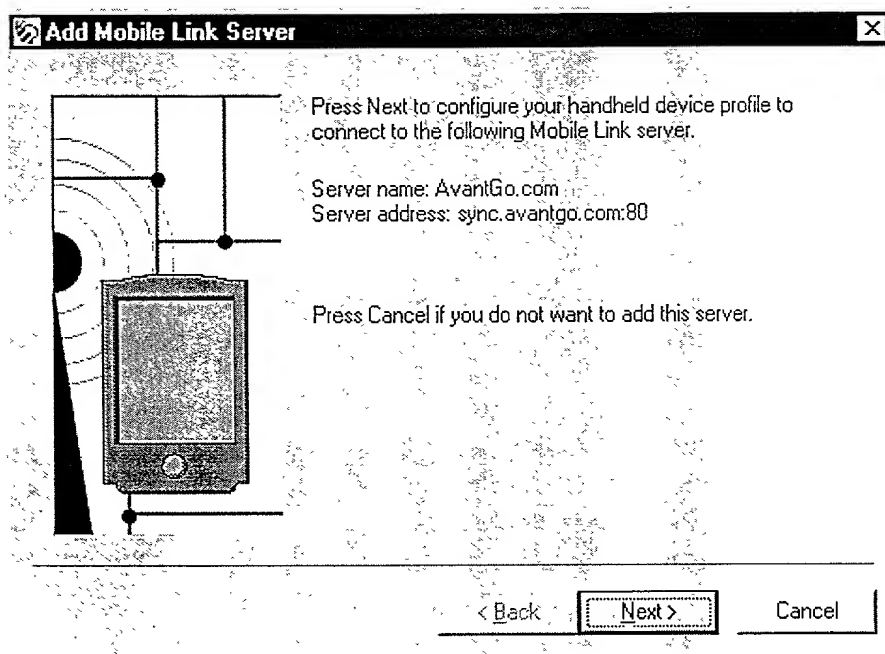


FIG. 56

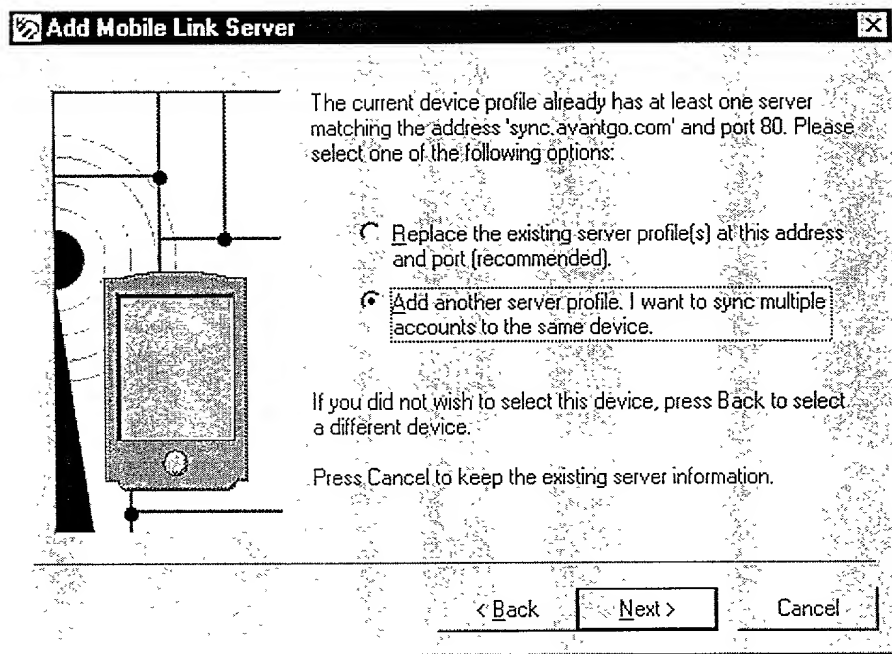


FIG. 57

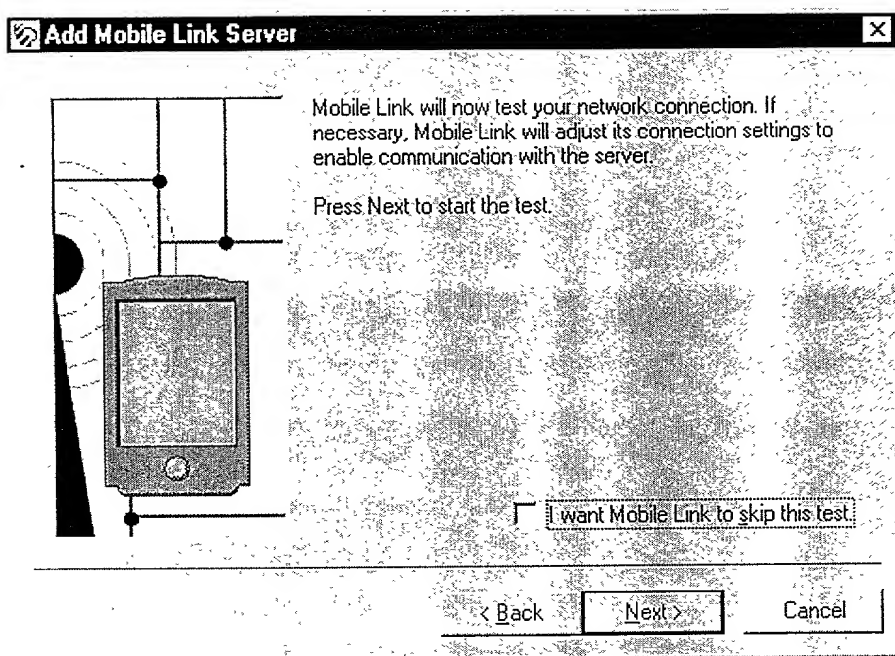


FIG. 58

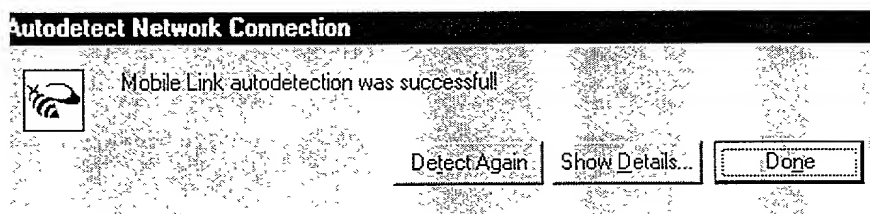


FIG. 59

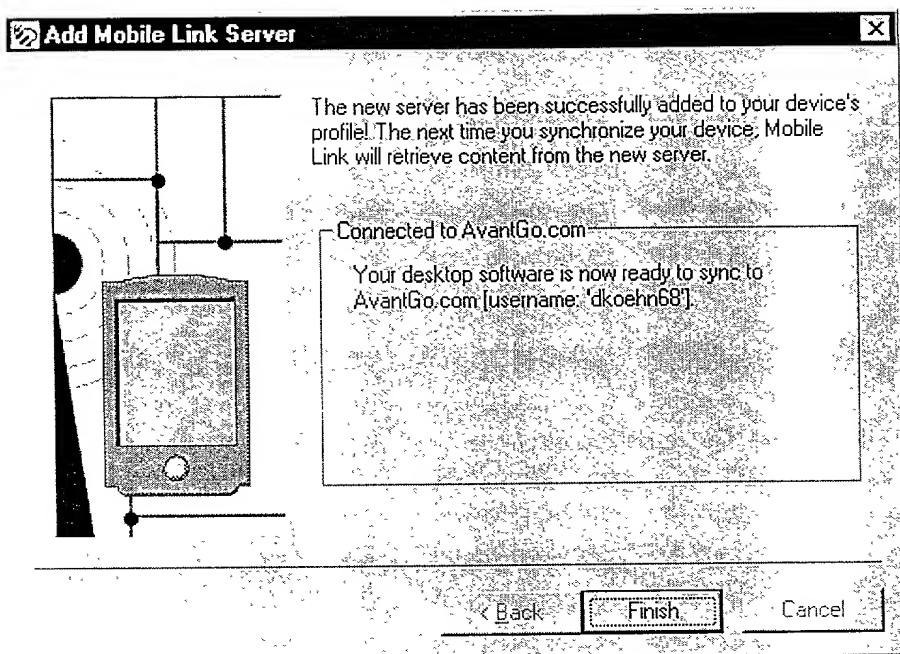
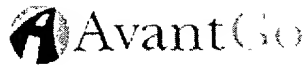


FIG. 60





#### SETUP CHECKLIST

1. CONNECT TO INTERNET

2. INSTALL SOFTWARE

3. SIGN UP FOR ACCOUNT

4. CREATE ACCOUNT

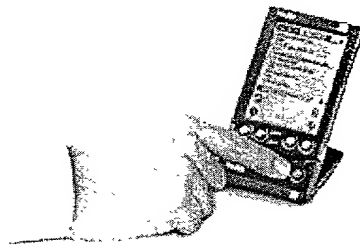
5. DOWNLOAD CONTENT

▶ SYNCHRONIZE

## SYNCHRONIZE

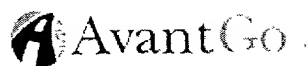
Place your device in its cradle and press the HotSync button

When you synchronize, your AvantGo 3.x software will connect to the Avantgo servers for the first time. After synchronization is complete, click the "Next" button at the bottom of the page.



NEXT >>

FIG. 61



#### SETUP CHECKLIST

- ✓ 1. DOWNLOAD
- ✓ 2. INSTALL
- ✓ 3. SYNCHRONIZE
- ✓ 4. CREATE ACCOUNT
- ✓ 5. VIEW CHANNELS
- ✓ 6. SYNCHRONIZE

## CONGRATULATIONS!

You are now an AvantGo user

Pick up your device, click on the "applications" button and select AvantGo to begin navigating channels. Use the links below to begin navigating AvantGo.

### CHANNELS

Choose from 1000s of exciting channels from leading providers

### ACCOUNT

View and edit your personalized account settings

**FINISH >>**

FIG. 62

6302

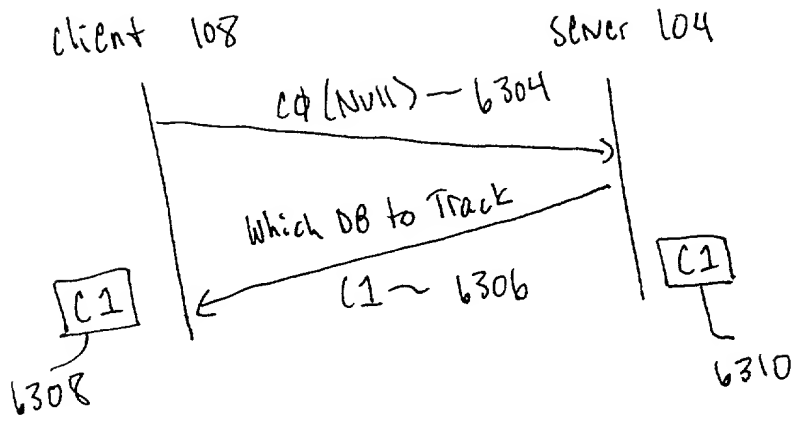


FIG. 63A

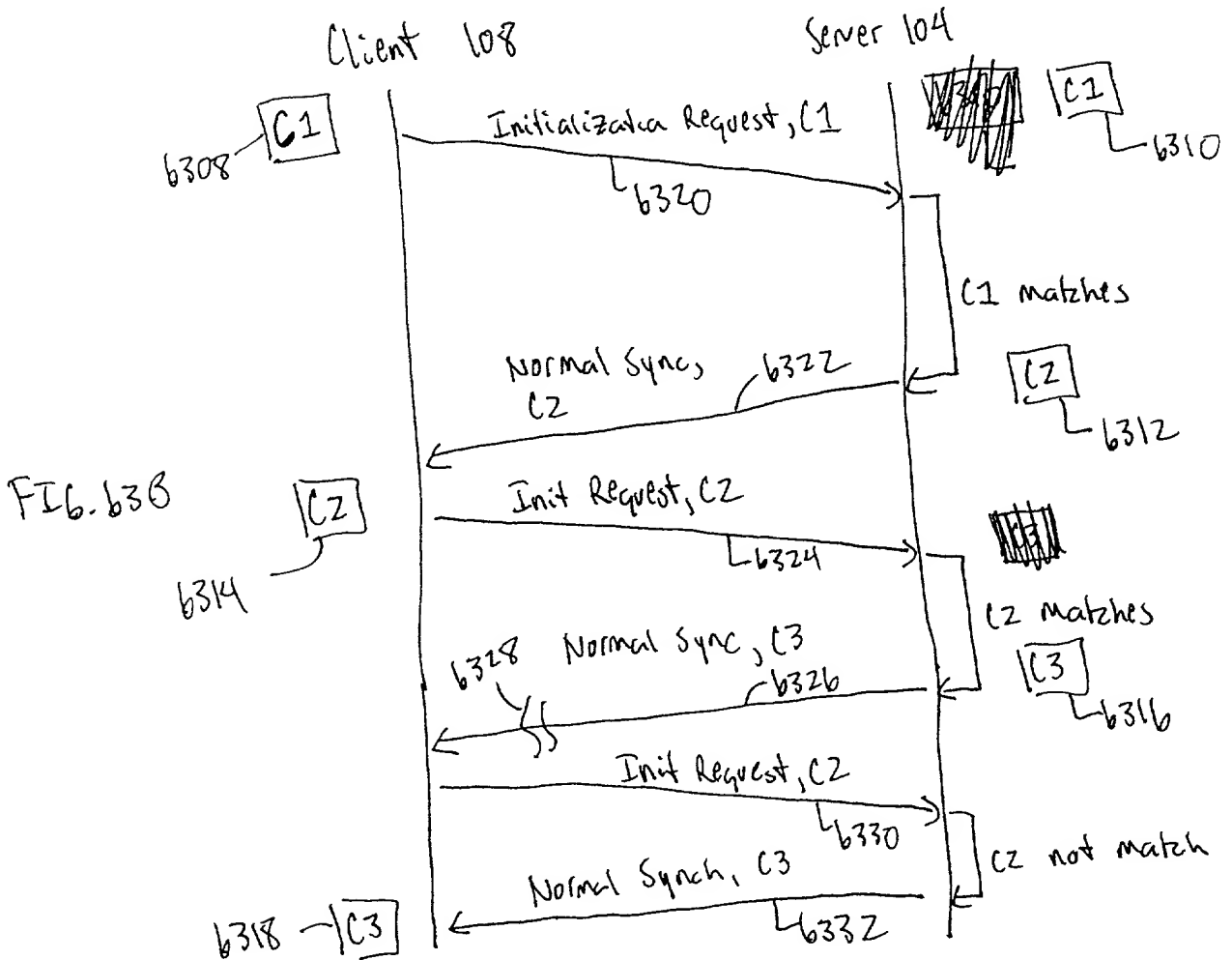


FIG. 63B